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NC DENR

Division of Waste Management - Solid Waste

**Environmental Monitoring
Reporting Form**

Notice: This form and any information attached to it are "Public Records" as defined in NC General Statute 132-1. As such, these documents are available for inspection and examination by any person upon request (NC General Statute 132-6).

Instructions:

- Prepare one form for each individually monitored unit.
- Please type or print legibly.
- Attach a notification table with values that attain or exceed NC 2L groundwater standards or NC 2B surface water standards. The notification must include a preliminary analysis of the cause and significance of each value. (e.g. naturally occurring, off-site source, pre-existing condition, etc.).
- Attach a notification table of any groundwater or surface water values that equal or exceed the reporting limits.
- Attach a notification table of any methane gas values that attain or exceed explosive gas levels. This includes any structures on or nearby the facility (NCAC 13B .1629 (4)(a)(i)).
- Send the original signed and sealed form, any tables, and Electronic Data Deliverable to: Compliance Unit, NCDENR-DWM, Solid Waste Section, 1646 Mail Service Center, Raleigh, NC 27699-1646.

Solid Waste Monitoring Data Submittal Information

Name of entity submitting data (laboratory, consultant, facility owner):

S&ME, Inc.

Contact for questions about data formatting. Include data preparer's name, telephone number and E-mail address:

Name: Edmund HenriquesPhone: 336-288-7180E-mail: ehenriques@smeinc.com

Facility name:

Facility Address:

Facility Permit #

NC Landfill Rule:
(.0500 or .1600)Actual sampling dates (e.g.,
October 20-24, 2006)

White Street Landfill - Phase I

North end of White Street, Greensboro,
NC

41-03

Not Applicable

October 6-8, 2016

Environmental Status: (Check all that apply)☐ Initial/Background Monitoring ☒ Detection Monitoring ☐ Assessment Monitoring ☐ Corrective Action**Type of data submitted: (Check all that apply)**☒ Groundwater monitoring data from monitoring wells ☐ Methane gas monitoring data
☐ Groundwater monitoring data from private water supply wells ☐ Corrective action data (specify) _____
☐ Leachate monitoring data ☐ Other(specify) _____
☒ Surface water monitoring data**Notification attached?**

- ☐ No. No groundwater or surface water standards were exceeded.
- ☒ Yes, a notification of values exceeding a groundwater or surface water standard is attached. It includes a list of groundwater and surface water monitoring points, dates, analytical values, NC 2L groundwater standard, NC 2B surface water standard or NC Solid Waste GWPS and preliminary analysis of the cause and significance of any concentration.
- ☐ Yes, a notification of values exceeding an explosive methane gas limit is attached. It includes the methane monitoring points, dates, sample values and explosive methane gas limits.

Certification

To the best of my knowledge, the information reported and statements made on this data submittal and attachments are true and correct. Furthermore, I have attached complete notification of any sampling values meeting or exceeding groundwater standards or explosive gas levels, and a preliminary analysis of the cause and significance of concentrations exceeding groundwater standards. I am aware that there are significant penalties for making any false statement, representation, or certification including the possibility of a fine and imprisonment.

Edmund Q.B. Henriques

Senior Geologist / Project Manager 336-288-7180

Facility Representative Name (Print)

Title

(Area Code) Telephone Number

Signature

1/29/2016

Affix NC Licensed/ Professional Geologist Seal

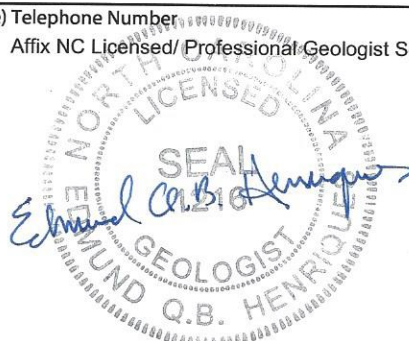
Date

8646 Market Street, Suite 105, Greensboro, NC 27409

Facility Representative Address

NC PE Firm License Number (if applicable effective May 1, 2009)

Revised 6/2009



**White Street Landfill - Phase I
Permit # 41-03
Post-Closure Monitoring October 2015
Greensboro North Carolina
S&ME Project No. 1584-98-081C**

**Prepared for:
The City of Greensboro**



**Prepared by:
S&ME, Inc.
8646 W Market St, Suite 105
Greensboro, NC 27409**

January 29, 2016



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1.0 Executive Summary

Five monitoring wells and five stream locations at Phase I of the White Street Landfill were sampled between October 6, 2015 and October 8, 2015. Five wells (I-1, I-2, I-3, I-4 and MW-13) comprise the groundwater monitoring system for the closed Phase I portion of the White Street Landfill. Monitoring well MW-13 serves as a background well for both the Phase I and the Phase II areas. The sampling was conducted according to North Carolina Solid Waste Management Guidelines and samples were analyzed by a North Carolina certified laboratory.

Analytical results from the five Phase I monitoring wells indicate that the following NCAC 2L groundwater quality standards were exceeded.

- ◆ Benzene was detected at 3.3 µg/L at well I-1 which exceeds the 15A NCAC 2L groundwater standard (2L Standard) of 1 µg/L.
- ◆ Vinyl Chloride was detected at estimated concentrations of 0.65 µg/L and 0.59 µg/L at wells I-2 and I-3, respectively; concentrations that exceed the 2L Standard of 0.03 µg/L.
- ◆ Cadmium was detected at 3.80 µg/L at well I-4 which exceeds the 2L Standard of 2 µg/L.
- ◆ Chromium was detected at 29.9 µg/L at well I-2 which exceeds the 2L Standard of 10 µg/L.

With regards to surface water sampling, both volatile organic constituents and inorganic constituents were detected at one or more sampled locations. No reported concentrations were greater than the corresponding NCAC 2B surface water standards or criteria except for chromium, cobalt, copper, lead, silver, and zinc. Analytical results for surface water samples collected up-stream of the White Street Landfill also exhibited concentrations of these metals. Water quality immediately down-stream of Phase I reported no 2B Standard exceedance. In contrast, higher concentrations were reported further down-stream of the facility in a stream segment potentially influenced by other sources. In view of this and extensive prior surface water and groundwater monitoring data, the landfill including Phase I is not considered to be the source of these constituents, or the cause for the apparent exceedances of the 2B Standards.

It is believed that the cause of the benzene and vinyl chloride 2L Standard exceedances within the hydrogeologic regime at Phase I is from percolation of landfill constituents from the waste management unit into the uppermost groundwater aquifer. Based on historic groundwater monitoring data and an assessment of naturally occurring metals in adjacent Phase II soils, the reported concentrations of cadmium and chromium are thought to represent a natural occurrence in local groundwater and/or colloidal solids in the groundwater samples, thus the concentration reported is not thought to indicate a release from the Phase I waste management unit.

Monitoring well I-1 reported to contain 2L Standard exceedances is located less than 100 feet from the limit of waste, and between the limits of waste and the compliance boundary. The City of Greensboro believes that Phase I of the White Street Landfill was closed prior to January 1, 1983, and as such, assessment and cleanup of this landfill unit should fall under jurisdiction of the NCDENR Inactive Hazardous Sites program Pre-Regulatory Landfill Unit, for "orphan landfills."

2.0 Introduction

White Street Landfill is a Solid Waste Management Facility (SWMF) located at the north end of White Street in northeastern Greensboro. S&ME, Inc. (S&ME) was contracted by the City of Greensboro to complete this water quality monitoring event. Phase I of the landfill is a closed unit, reportedly covered by Solid Waste Permit #41-03, which also covers Phase II of the Facility. **Figure 1** is a map showing the monitor well locations. One up-gradient and four down-gradient monitoring wells located along the perimeter of the closed Phase I disposal area were sampled. Five surface water samples were collected from North Buffalo Creek and one of its tributaries in the vicinity of the White Street facility. Phase I shares the surface water sampling locations with adjacent Phase II.

The samples collected from Phase I monitoring wells I-1, I-2, I-3, and I-4, were analyzed for **Appendix I** volatile organic constituents and the eight RCRA metals. Since background monitoring well MW-13 is shared with Phase II, the collected sample was analyzed for **Appendix II** constituents. This report discusses the field procedures, summarizes the field measurements and analytical results for the post-closure monitoring event completed during October 2015.

3.0 Scope Of Work

To complete the scope of work, S&ME completed the following tasks:

- ◆ Sampled five monitoring wells and five surface water locations.
- ◆ Obtained field values for pH, temperature, conductivity, dissolved oxygen (DO), oxidation-reduction potential (ORP), and turbidity at each sampled monitoring well location.
- ◆ Depths to water measurements were collected prior to sampling and during well purging to monitor drawdown.
- ◆ Groundwater samples I-1, I-2, I-3, and I-4, were analyzed for **Appendix I** organic constituents and 8-RCRA metals by a North Carolina certified laboratory, using State approved methods.
- ◆ Groundwater sample MW-13 was analyzed for **Appendix II** constituents by a North Carolina certified laboratory, using State approved methods.
- ◆ Surface water samples SW-1, SW-2, SW-3, SW-4 and SW-5 were analyzed for **Appendix I** constituents by a North Carolina certified laboratory, using State approved methods.
- ◆ Estimated groundwater flow directions for the Phase I area.
- ◆ Prepared and submitted this Post-Closure Monitoring Report to the City of Greensboro and the State.

4.0 Methods Employed

4.1 Monitoring Well Sampling

Phase I groundwater monitoring well sampling took place between October 6, and October 7, 2015, with shared background monitoring well MW-13 sampled on October 8, 2015. The monitoring well locations are shown on **Figure 1**. A representative from S&ME opened each well and measured the static water level from the top edge of the PVC casing in wells. The total well depth sounding data reported for the sampling events completed during September 1997 and May 1998 were used to determine the volume of

water in wells I-1, I-2, I-3, I-4 and MW-13, where dedicated MicroPurge™ pumps had been previously installed. **Table 1** provides a summary of relevant well construction details.

In accordance with the facility's approved Water Quality Monitoring Plan, each well was purged using the dedicated MicroPurge™ pumps using compressed air. At each well, the purge rate and the drawdown of the water table were monitored as an indicator of how much stress the purging placed on the aquifer. The purge rates were calculated by recording the time required to fill a graduated cylinder. The purging flow rates varied but were approximately 100 milliliters/minute (ml/min.). During purging, the depth to water was periodically monitored and recorded on the groundwater sampling field data sheets.

It is our opinion that the observed drawdowns were generally minor during purging; therefore, the stresses placed on the aquifer should have been insignificant. The observed drawdown data suggests that the purging rates should have been low enough such that recharge water should not have been overly agitated, reducing the potential for colloids to be drawn into the well bore.

The purge water from each of these wells was monitored for pH, temperature, conductivity, DO, ORP and turbidity. The time interval between measurements approximated one equipment volume, at a minimum. Sample collection was commenced when the changes in those readings fluctuated no more than 10 percent and utilizing a turbidity goal of 10 NTU, or less. Despite the use of low flow methods, turbidity values remain higher than ideal or increased during the purging of wells I-2 and I-4; therefore, samples were collected without meeting the turbidity goal, relying upon professional judgement. The field data collected during sampling was recorded on the groundwater sampling field data sheets, included in **Appendix I**. **Table 2** provides a summary of the field data collected during this event.

Groundwater samples were collected from dedicated pump discharge Teflon tubing at the top of each well. Immediately upon collection, each sample was placed in laboratory supplied containers and placed in a cooler with ice. The sampler wore nitrile gloves that were changed between wells to reduce the possibility of cross contamination. Upon collection, the groundwater samples were maintained under chain-of custody.

Phase I monitoring well samples I-1, I-2, I-3 and I-4 were analyzed for **Appendix I** volatile organic constituents and the eight RCRA metals. Since background well MW-13 is shared with Phase II, the collected sample was analyzed for **Appendix II** constituents. Analyses were conducted by Environmental Conservation Laboratories, a North Carolina certified laboratory.

4.2 Stream Sampling

Surface water sampling took place on October 7, 2015. Surface water SW-1 was collected from North Buffalo Creek on the west side of the U.S. Highway 29 bridge upstream of the landfill. Surface water SW-2 was collected from a southern tributary of North Buffalo Creek just before it joins the main creek west of the landfill entrance. SW-3 was collected from North Buffalo Creek downstream of the North Buffalo Wastewater Treatment Plant outfall and upstream of the landfill. SW-4 was collected from North Buffalo Creek downstream of the landfill at a USGS gauging station located on North Buffalo Creek about three-quarters of a mile north of the landfill. SW-5 was collected from North Buffalo Creek immediately downstream of the Phase I and II landfill disposal areas. The locations are shown in **Figure 2**.

The surface water samples were collected by immersing laboratory supplied containers in the water to be sampled. After collection, the surface water samples were placed in a cooler with ice and placed under chain-of-custody. Each surface water sample was analyzed for **Appendix I** inorganic and volatile organic constituents by Environmental Conservation Laboratories; a North Carolina certified laboratory.

5.0 Results

5.1 Groundwater Analytical Results

Table 3 provides a summary of the constituent concentrations reported above the method detection limit (MDL) for the groundwater samples collected. Concentrations reported between the MDL and the Solid Waste Section Limits (SWSL) are considered estimated, thus shown as a “J” flagged concentration. **Table 4** provides a summary of the reported concentrations which exceed the 15A NCAC 2L Standards (2L Standard). For some constituents where there is no established 2L Standard, North Carolina has published Interim Maximum Allowable Concentrations (IMACs). The IMAC values are intended to help NCDENR in assessing conditions and setting health protective groundwater levels at regulated sites. As such the IMAC are only interim and not final groundwater quality standards. The following summarizes the exceedances of the corresponding 2L Standard or IMAC.

- ◆ Benzene was detected at 3.3 µg/L at well I-1 which exceeds the 15A NCAC 2L groundwater standard (2L Standard) of 1 µg/L.
- ◆ Vinyl Chloride was detected at estimated concentrations of 0.65 µg/L and 0.59 µg/L at wells I-2 and I-3, respectively; concentrations that exceed the 2L Standard of 0.03 µg/L.
- ◆ Cadmium was detected at 3.80 µg/L at well I-4 which exceeds the 2L Standard of 2 µg/L.
- ◆ Chromium was detected at 29.9 µg/L at well I-2 which exceeds the 2L Standard of 10 µg/L.
- ◆ At monitoring well MW-13 vanadium was detected at an estimated concentration of 4.71 µg/L, which is similar to prior reported concentrations. This concentration is greater than the IMAC for vanadium. Monitoring well MW-13 is a background monitoring well for Phase I and II. The detected concentration is considered to represent natural background groundwater quality. As a natural condition, it would not represent an exceedance of the IMAC standard.

The complete laboratory analytical reports are included in **Appendix II**. Analytical results in the NCDENR EDD format are contained in **Appendix III** (CD only).

5.2 Groundwater Flow Direction

The static water levels in the four Phase I monitoring wells were measured between October 6 and October 7, 2015, while background monitoring well MW-13 was measured on October 8, 2015. The depths to the water table ranged from 2.57 to 18.01 feet below the top of well casings on these dates. Groundwater and well casing elevation data are presented in **Table 1**. A groundwater contour map constructed using the data collected during this monitoring event is presented as **Figure 1**. The groundwater elevation data collected during this monitoring event indicates that the groundwater beneath Phase I generally flows to the north toward Buffalo Creek.

5.3 Surface Water

Table 5 provides a summary of the constituent concentrations reported above the method detection limit (MDL) for the surface water samples collected. Concentrations reported between the MDL and the Solid Waste Section Limits (SWSL) are considered estimated, thus shown as a “J” flagged concentration. **Table 6** provides a summary of the reported concentrations which exceed the corresponding 15A NCAC 2B Standard (2B Standard). The following summarizes the exceedances of the 2B Standards. The complete laboratory analytical report is included in **Appendix II**.

- ◆ Cobalt, copper, and zinc were detected at concentrations greater than the corresponding 2B Standard in sample SW-1.
- ◆ Silver was detected at a concentration greater than the 2B Standard Action Level in sample SW-3.
- ◆ Chromium, cobalt, copper, lead, silver, and zinc were detected at concentrations greater than the corresponding 2B Standard or Action Levels in sample SW-4.

Surface water sample location SW-1 is up-stream of the facility. Sample location SW-5 is down-stream of Phase I with analytical results reporting no 2B Standard exceedance. In contrast, sample location SW-4 is even further down-stream of the facility, and along a stream segment potentially influenced by other sources. Considering the upstream data, giving greater weight to the analytical results for sample SW-5 located immediately down-stream of Phase I, and giving less weight to the analytical results for sample SW-4, Phase I are not believed to be the cause for the apparent exceedances of the 2B Standards.

5.4 Quality Assurance

A qualitative review of the data was performed to verify that the detected concentrations in the laboratory report were of known quality. A formal, quantitative data validation was not performed. Laboratory-assigned data qualifiers were evaluated to verify that rejected or unsupportable data were not included in the dataset. Quality control data provided in the laboratory reports were also reviewed. No rejected or otherwise unacceptable quality data were reported from the laboratory.

The monitoring wells in Phase I were sampled using dedicated micro-purge pumps. Therefore, no equipment rinse samples were collected for analysis for data quality control. Trip blank samples accompanied the sample bottles from the time they left the laboratory until they returned. The trip blank samples were analyzed for **Appendix I** volatile organic constituents. No volatile organic constituents were present in the trip blank samples at detectable levels. Laboratory QC samples were analyzed for all constituents included in this sampling event. The results of the trip blank and laboratory QC sample analyses are included in **Appendix II**.

6.0 References

Fetter, C. W., 1988, Applied Hydrogeology, New York; Macmillan Publishing Company, 1988, 592 pp.

North Carolina Administrative Code, Title 15A, Department of Environment, Health and Natural Resources, Division of Environmental Management, Subchapter 2L, Classifications and Water Quality Standards Applicable to the Groundwaters of North Carolina, Sections .0100, .0200, and .0300; from the Environmental Management Commission Raleigh, North Carolina.

North Carolina Administrative Code, Title 15A, Department of Environment, Health and Natural Resources, Division of Environmental Management, Subchapter 2B, Classifications and Water Quality Standards Applicable to the Surface Waters of North Carolina, Section .0200; from the Environmental Management Commission, Raleigh, North Carolina.

North Carolina Administrative Code, Title 15A, Department of Environment, Health and Natural Resources, Division of Solid Waste Management, subchapter 13B, Solid Waste Management, Section .1600.

7.0 Certification

I hereby certify this 29th day of January 2016 that this report was prepared by me or under my direct supervision.



Edmund Q.B. Henriques, L.G.
Senior Geologist / Project Manager

Technical support provided by:



Amanda Bloom
Staff Professional

TABLE 1
WELL CONSTRUCTION AND GROUNDWATER ELEVATION DATA
PHASE 1 - PERMIT # 41-03
WHITE STREET LANDFILL
GREENSBORO, NORTH CAROLINA
S&ME PROJECT NO. 1584-98-081C

Well ID	Date Installed	Total Depth (feet)	Well Diameter (inches)	Depth to Top of Screen (feet)	Well Screen Interval (feet bgs)	Geology of Screened Interval	Northing NAD 83	Easting NAD 83	Ground Elevation NAVD 88 (feet msl.)	Top of Casing Elevation NAVD 88 (feet msl.)	Depth to Groundwater ¹ October 2015 (feet)	Groundwater Elevation October 2015 (feet msl.)
I-1	7/14/1989	24	2	14	14 - 24	partially weather rock	1785583.98	859726.77	not measured	713.75	8.45	705.30
I-2	7/14/1989	24	2	14	14 - 24	sandy silt	1785319.23	860640.98	not measured	703.09	5.21	697.88
I-3	7/14/1989	24	2	14	14 - 24	sandy silt	1785334.06	861315.16	not measured	707.43	14.01	693.42
I-4	7/14/1989	15	2	5	5 - 15	sandy silt saprolite	1786167.37	861969.09	not measured	694.94	2.57	692.37
MW-13	7/14/1989	34	2	19	19 - 34	sandy silt saprolite	1783166.56	858751.94	not measured	741.24	18.01	723.23

City of Greensboro provided the top of casing elevations and ground surface elevations

Well Construction details obtained from Well Construction Records reported by BPA Environmental & Engineering, Inc.

feet bgs. = feet below ground surface

feet msl. = feet mean sea level

Depth to Groundwater¹ = below top of casing

Groundwater Elevation = calculated groundwater elevation

TABLE 2
SUMMARY OF GROUNDWATER SAMPLING FIELD PARAMETERS
PHASE 1 - PERMIT # 41-03
WHITE STREET LANDFILL
GREENSBORO, NORTH CAROLINA
S&ME PROJECT NO. 1584-98-081C

DATE	WELL ID	WELL DEPTH (feet)	DEPTH TO WATER (feet)	WATER ELEVATION (feet)	ODOR	PURGE METHOD	PUMP RATE (mL/min)	WELL VOLUME (gallons)	EVAC VOLUME (gallons)	PURGED DRY? (yes/no)	TEMP (deg C)	pH (SU)	SPECIFIC CONDUCTANCE (µs/cm)	ORP (mV-NHE)	DO (mg/L)	TURBIDITY (NTU)
10/6/2015	I-1	24	8.45	705.30	None	low flow	100	2.70	1.2	No	17.01	5.48	2341	123	0.99	2.41
10/6/2015	I-2	24	5.21	697.88	None	low flow	100	2.60	1.0	No	16.63	5.89	2017	-12	1.19	54.30
10/7/2015	I-3	24	14.01	693.42	None	low flow	100	1.66	1.5	No	14.50	5.97	2424	54	0.69	2.96
10/7/2015	I-4	15	2.57	692.37	None	low flow	100	2.03	2.0	No	17.89	6.35	1239	106	0.37	27.70
10/7/2015	MW-13	34	18.01	723.23	None	low flow	100	2.44	0.7	No	15.81	6.47	304	-38.4	3.80	1.62

Notes:

1. TEMP = groundwater temperature, measured in degrees Celsius
2. Pump Rate, measured in milliliters/minute
3. Specific Conductance, measured in µs/cm indicates micro Siemens per centimeter.
4. SU indicates Standard Units.
5. NTU indicates Nephelometric Turbidity Units.
6. ORP = Oxidation Reduction Potential, mV-NHE indicates millivolts-Normal Hydrogen Electrode.
7. EVAC = evacuated volume of groundwater
8. DO = dissolved oxygen, measured in milligrams per liter

TABLE 3
SUMMARY OF GROUNDWATER ANALYSES RESULTS - DETECTIONS
PHASE 1 - PERMIT # 41-03
WHITE STREET LANDFILL
GREENSBORO, NORTH CAROLINA
S&ME PROJECT NO. 1584-98-081C

Solid Waste Section ID #	Well ID Sample ID Date Collected Detected Analytes	Sample Locations					NC SWSL (µg/L)	NCAC 2L Standards (µg/L)	NCDENR IMAC (µg/L)	Federal MCLs (µg/L)
		I-1	I-2	I-3	I-4	MW-13				
		4103-I1	4103-I2	4103-I3	4103-I4	4103-MW13				
		10/06/15 (µg/L)	10/06/15 (µg/L)	10/07/15 (µg/L)	10/07/15 (µg/L)	10/08/15 (µg/L)				
Appendix II Semi-volatile Organic Compounds										
111	Bis(2-ethylhexyl)phthalate	na	na	na	na	1.8 J	15	3	ns	ns
Appendix II Volatile Organic Compounds										
75	1,1-Dichloroethane	1.0 J	<0.13	3.2 J	<0.13	<0.13	5	6	ns	ns
77	1,1-Dichloroethene	<0.21	<0.21	0.80 J	<0.21	<0.21	5	7	ns	ns
69	1,2-Dichlorobenzene	<0.19	1.4 J	0.84 J	<0.19	<0.19	5	20	ns	600
71	1,4-Dichlorobenzene	3.6	1.7	4.7	0.53 J	<0.19	1	6	ns	75
16	Benzene	3.3	<0.15	0.58 J	<0.15	<0.15	1	1	ns	5
39	Chlorobenzene	7.2	8.0	18	0.67	<0.17	3	50	ns	100
78	cis-1,2-Dichloroethene	0.94 J	0.41 J	0.87 J	<0.15	<0.15	5	70	ns	70
196	Toluene	<0.14	0.50 J	<0.14	<0.14	<0.14	1	600	ns	ns
211	Vinyl Chloride	<0.32	0.65 J	0.59 J	<0.32	<0.32	1	0.03	ns	2
8-RCRA Metals + Appendix II Metals										
15	Barium	484	576	151	376	93.3 J	100	700	ns	2,000
34	Cadmium	<0.360	<0.360	<0.360	3.80	<0.360	1	2	ns	5
51	Chromium	2.66	29.9	7.78 J	4.61 J	<1.40	10	10	ns	100
131	Lead	3.70 J	4.30 J	<3.10	3.70 J	<3.10	10	15	ns	ns
184	Silver	<1.90	<1.90	<1.90	<1.90	2.79 J	10	20	ns	100
209	Vanadium	na	na	na	na	4.71 J	25	ns	0.3	ns
213	Zinc	na	na	na	na	4.19 J	10	1,000	ns	5,000

µg/L = concentrations reported in micrograms per liter (ug/L)

< = concentrations is less than the method detection limit shown

NC SWSL = North Carolina Solid Waste Section Limit

J = Concentration reported greater than the method detection limit but less than the SWSL, thus it is considered estimated

NCAC 2L Standards = 15A North Carolina Administrative Code 2L .0200, GW Quality Standards for Class GA groundwater.

concentrations in bold exceed the corresponding 2L Standard

NCDENR IMAC = Interim Maximum Allowed Concentration, NCDENR

Federal MCL = Maximum Concentration Levels, USEPA

ns = no MCL listed, USEPA

na = not analyzed

TABLE 4
SUMMARY OF GROUNDWATER STANDARD EXCEEDANCES
PHASE 1 - PERMIT # 41-03
WHITE STREET LANDFILL
GREENSBORO, NORTH CAROLINA
S&ME PROJECT NO. 1584-98-081C

Solid Waste Section ID #	Well ID Sample ID Date Collected Detected Analytes	Sample Locations				NCAC 2L Standards (µg/L)	NCDENR IMAC (µg/L)	Federal MCLs (µg/L)
		I-1	I-2	I-3	I-4			
		4103-I1	4103-I2	4103-I3	4103-I4			
		10/06/15 (µg/L)	10/06/15 (µg/L)	10/07/15 (µg/L)	10/07/15 (µg/L)			
Appendix I Volatile Organic Compounds								
16	Benzene	3.3	<0.15	0.58 J	<0.15	1	ns	5
211	Vinyl Chloride	<0.32	0.65 J	0.59 J	<0.32	0.03	ns	2
8-RCRA Metals								
34	Cadmium	<0.360	<0.360	<0.360	3.80	2	ns	5
51	Chromium	2.66	29.9	7.78 J	4.61 J	10	ns	100

µg/L = concentrations reported in micrograms per liter (µg/L)

< = concentrations is less than the method detection limit shown

NC SWSL = North Carolina Solid Waste Section Limit

NCAC 2L Standards = 15A North Carolina Administrative Code 2L .0200, GW Quality Standards for Class GA groundwater.

Concentration greater than the NCAC 2L Standards are shown in bold

NCDENR IMAC = Interim Maximum Allowed Concentration, NCDENR

Federal MCL = Maximum Concentration Levels, USEPA

ns = no MCL listed, USEPA

na = not analyzed

TABLE 5
SUMMARY OF SURFACE WATER ANALYSES RESULTS - DETECTIONS
PHASE 1 - PERMIT # 41-03
WHITE STREET LANDFILL
GREENSBORO, NORTH CAROLINA
S&ME PROJECT NO. 1584-98-081C

Solid Waste Section ID #	Sample Location	Sample Locations					NC SWSL	NCAC 2B Standards
		SW-1	SW-2	SW-3	SW-4	SW-5		
	Sample ID	4103-SW1	4103-SW2	4103-SW3	4103-SW4	4103-SW5		
	Date Collected	10/07/15	10/07/15	10/07/15	10/07/15	10/07/15		
Detected Analytes		(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)
Appendix I Volatile Organic Compounds								
28	Bromodichloromethane	<0.17	<0.17	0.96 J	<0.17	<0.17	3	ns
44	Chloroform	<0.18	<0.18	2.4 J	0.92 J	1.0 J	5	5.6
Appendix I Metals								
13	Antimony	0.268 J	<0.220	0.372 J	0.259 J	<0.220	6	5.6
15	Barium	85.7 J	42.6 J	28.3 J	319	41.0 J	100	1000
23	Beryllium	<0.100	<0.100	<0.100	1.50	<0.100	100	ns
34	Cadmium	0.784 J	<0.360	<0.360	5.66	<0.360	1	ns
51	Chromium	7.93 J	<1.40	<1.40	66.1	<1.40	10	50
53	Cobalt	4.34 J	<1.10	2.43 J	46.5	1.92 J	10	3
54	Copper	11.30	<1.60	2.65 J	57.1	2.17 J	10	7
131	Lead	7.02 J	<3.10	<3.10	93.2	<3.10	10	25**
184	Silver	<1.90	<1.90	2.74 J	<1.90	2.32 J	10	0.06**
152	Nickel	3.16 J	<1.80	6.56 J	22.0 J	3.14 J	50	25
209	Vanadium	18.2 J	2.91 J	3.69 J	61.8	3.05 J	25	ns
213	Zinc	117	7.88 J	25.2	1,020	24.5	10	50**

J = estimated

* = Title 15A NCAC 2B Standards for Class C, WS-V surface water

** = Freshwater Standard

µg/L = concentrations reported in micrograms per liter (µg/L)

< = concentrations is less than the method detection limit shown

NC SWSL = North Carolina Solid Waste Section Limit

TABLE 6
SUMMARY OF 2B SURFACE WATER STANDARD EXCEEDANCES
PHASE 1 - PERMIT # 41-03
WHITE STREET LANDFILL
GREENSBORO, NORTH CAROLINA
S&ME PROJECT NO. 1584-98-081C

Solid Waste Section ID #	Sample Location	Sample Locations			NC SWSL	NCAC 2B Standards*
		SW-1	SW-3	SW-4		
	Sample ID	4103-SW1	4103-SW3	4103-SW4		
	Date Collected	10/07/15	10/07/15	10/07/15		
Detected Analytes		(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)
8-RCRA Metals						
51	Chromium	7.93 J	<1.40	66.1	10	50
53	Cobalt	4.34 J	2.43 J	46.5	10	3
54	Copper	11.30	2.65 J	57.1	10	7 (AL)
131	Lead	<3.10	<3.10	93.2	10	25**
184	Silver	<1.90	2.74 J	<1.90	10	0.06** (AL)
213	Zinc	117	25.2	1,020	10	50** (AL)

concentrations in bold print are greater than the referenced NCAC 2B Standard

µg/L = concentrations reported in micrograms per liter (µg/L)

< = concentrations is less than the method detection limit shown

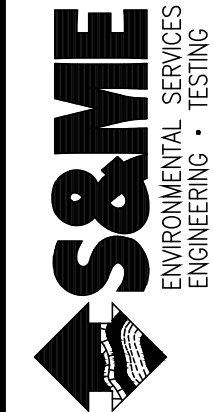
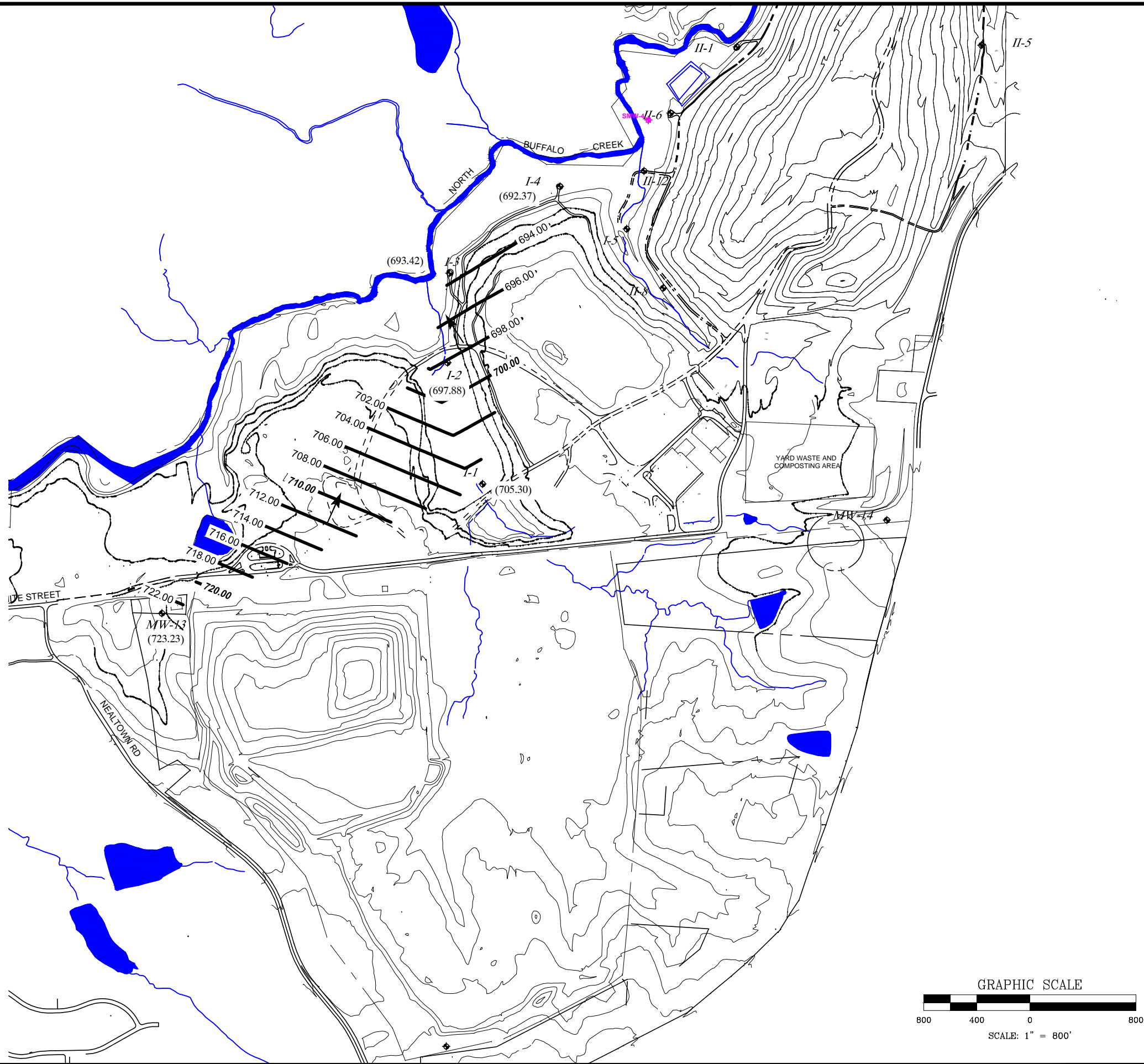
* = Title 15A NCAC 2B Standards for Class C, WS-V surface water

** = Freshwater Standard

(AL) = Action Level

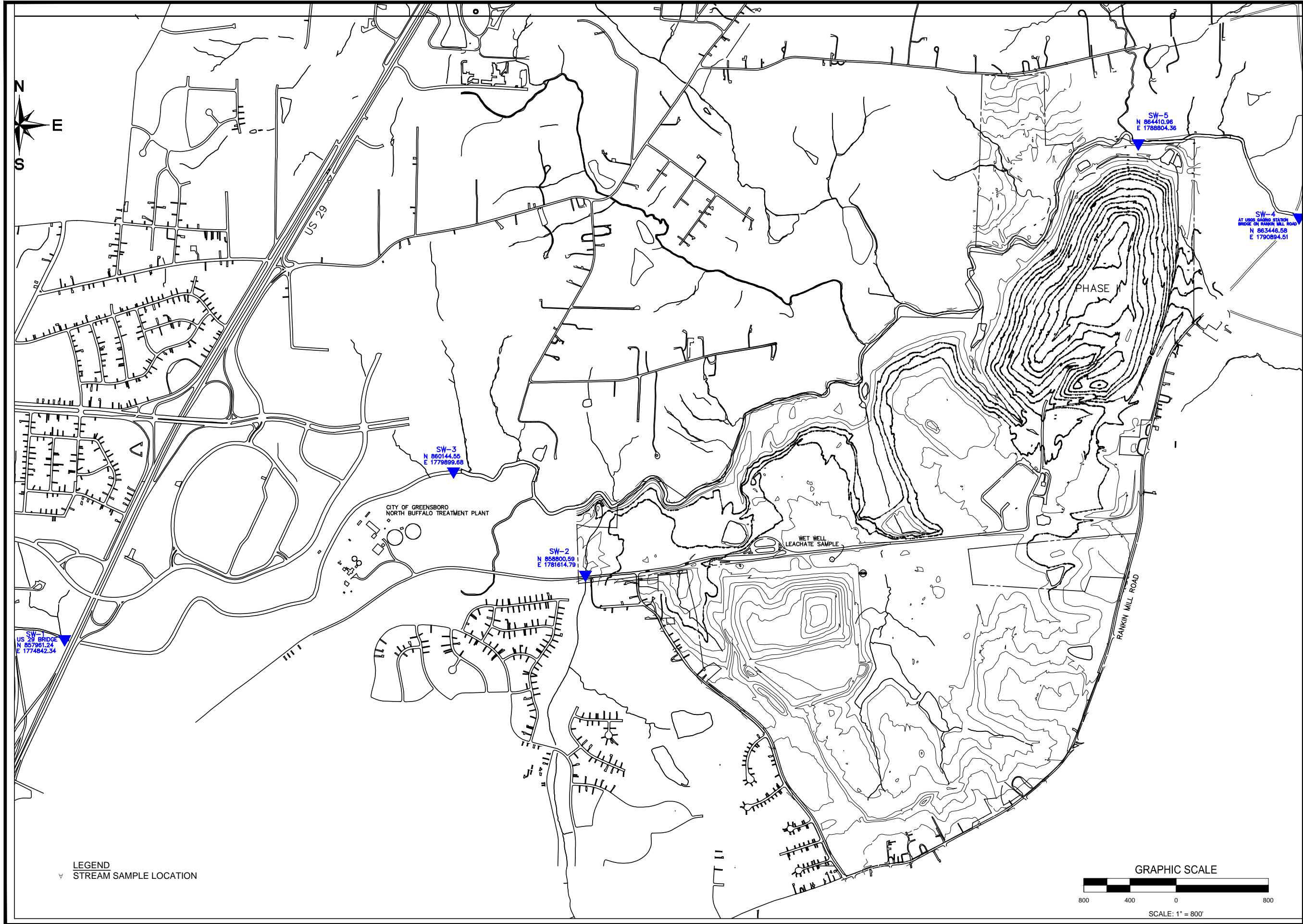
J = Concentration reported greater than the method detection limit but less than the SWSL, thus it is considered estimated

- LEGEND:
- ② SURFACE WATER SAMPLING POINT
 - ◆ MONITORING WELL LOCATION
 - (705.30) GROUNDWATER ELEVATION
 - ← GROUNDWATER FLOW DIRECTION
 - GROUNDWATER CONTOUR LINE




GROUNDWATER FLOW MAP
PHASE I
WHITE STREET LANDFILL
GREENSBORO, NORTH CAROLINA

SCALE:	AS SHOWN	DRAWN BY:	RDM	CHECKED BY:	EOBH
JOB NO.	1584-98-081C	DATE:	DECEMBER 2015	FIGURE NO.	1



STREAM SAMPLE LOCATION			
PHASE I			
WHITE STREET LANDFILL			
GREENSBORO, NORTH CAROLINA			
SCALE:	AS SHOWN	DRAWN BY:	DSB/RDM
JOB NO.	1584-98-081	DATE:	NOVEMBER 2007
CHECKED BY:			LE
FIGURE NO.			2

**S&ME**

ENVIRONMENTAL SERVICES
ENGINEERING • TESTING

Appendices

Appendix I – Groundwater Sampling Field Data Sheets

GROUNDWATER SAMPLING FIELD DATA

Location: <u>White Street Landfill</u>	Purge Date: <u>Thursday, October 08, 2015</u>
Project No.: <u>1584-98-081</u>	Purge Time: <u>30 Minutes</u>
Source Well: <u>4103-MW13</u>	Sample Date: <u>Thursday, October 08, 2015</u>
	Sample Time: <u>920</u>
Locked?: Yes: <u>x</u> No: <u> </u>	Weather: <u>Sunny</u>
Sampled By: <u>Bradley Keyse</u>	Air Temp: <u>66 °F</u>

Water Level & Well Data

Depth to water from measuring point:	<u>18.01</u>	feet
Depth to well bottom from measuring point:	<u>33.00</u>	feet
Height of water column:	<u>14.99</u>	feet
Measuring point:	<u>Top of Casing</u>	

Well Purging & Sample Collection

Purge Method <u>Bladder Pump</u>	Purge Time
Sample Method <u>Bladder Pump</u>	Start <u>850</u> Stop <u>920</u>
Purge Rate <u>100</u> ml/min	Sample Collection Time
Control Settings On: <u>3.0</u> sec.	Start <u>920</u> Stop <u>1000</u>
Off: <u>27.0</u> sec.	
Pressure: <u>30</u> psi	

Volume of water in well

2" well:
height: 14.99 x .163 = 2.44337

Volume of water removed 3.0 gallons liters x

Was well purged dry Yes No x

Field Analyses

*Stabilization Parameters

Time	Date	Temp	pH	Conductivity	*ORP	*D.O.	*Turbidity	DTW
850								
855	10/8/2015	15.61	6.42	0.318	-23.8	5.31	8.25	18.61
900	10/8/2015	15.50	6.41	0.318	-28.5	4.26	8.40	18.86
905	10/8/2015	15.68	6.45	0.314	-34.7	3.92	2.01	19.01
910	10/8/2015	15.78	6.48	0.311	-36.2	3.91	1.61	19.09
915	10/8/2015	15.81	6.47	0.306	-37.9	3.83	1.78	19.11
920	10/8/2015	15.81	6.47	0.304	-38.4	3.80	1.62	19.10

Final Readings	920	10/8/2015	15.81	6.47	0.304	-38.4	3.80	1.62	19.10
			* C	units	mS/cm	mV	mg/L	NTU	

GROUNDWATER SAMPLING FIELD DATA

Location: White Street Landfill
Project No.: 1584-98-081
Source Well: 4103-11

Locked?: Yes: x No:
Sampled By: Gary Simcox

Purge Date: Tuesday, October 06, 2015
Purge Time:
Sample Date: Tuesday, October 06, 2015
Sample Time: 1735
Weather: Sunny
Air Temp: 70 °F

Water Level & Well Data

Depth to water from measuring point: 8.45 feet
Depth to well bottom from measuring point: 25.00 feet
Height of water column: 16.55 feet
Measuring point: Top of Casing

Well Purging & Sample Collection

Purge Method Bladder Pump
Sample Method Bladder Pump
Purge Rate 100 ml/min
Control Settings On: 3.0 sec.
Off: 27.0 sec.
Pressure: psi

Purge Time
Start 1635 Stop 1725
Sample Collection Time
Start 1725 Stop 1735

Volume of water in well

2" well:

height: 16.55 x .163 = 2.69765

Volume of water removed 4.0 gallons liters x

Was well purged dry Yes No x

Field Analyses

*Stabilization Parameters

Time	Date	Temp	pH	Conductivity	*ORP	*D.O.	*Turbidity	DTW
1640	10/6/2015	18.74	5.66	2.490	117	2.48	19.50	8.55
1645	10/6/2015	18.72	5.66	2.472	117	2.05	17.10	8.62
1650	10/6/2015	18.10	5.58	2.392	122	1.40	12.40	8.69
1655	10/6/2015	17.87	5.55	2.365	124	1.39	6.84	8.67
1700	10/6/2015	17.89	5.55	2.356	124	1.35	5.76	8.68
1705	10/6/2015	17.64	5.53	2.350	124	0.83	3.84	8.68
1710	10/6/2015	17.43	5.53	2.346	123	0.89	3.25	8.68
1715	10/6/2015	17.24	5.53	2.342	122	0.98	2.46	8.68
1720	10/6/2015	17.10	5.51	2.341	121	0.95	2.34	8.68
1725	10/6/2015	17.01	5.48	2.341	123	0.99	2.41	8.64

Final Readings

1725	10/6/2015	17.01	5.48	2.341	123	0.99	2.41	8.64
		* C	units	mS/cm	mV	mg/L	NTU	

GROUNDWATER SAMPLING FIELD DATA

Location: <u>White Street Landfill</u>	Purge Date: <u>Tuesday, October 06, 2015</u>
Project No.: <u>1584-98-081</u>	Purge Time: _____
Source Well: <u>4103-I2</u>	Sample Date: <u>Tuesday, October 06, 2015</u>
	Sample Time: <u>1850</u>
Locked?: Yes: <u>x</u> No: _____	Weather: <u>Clear</u>
Sampled By: <u>Gary Simcox</u>	Air Temp: <u>60 °F</u>

Water Level & Well Data

Depth to water from measuring point:	<u>5.21</u>	feet
Depth to well bottom from measuring point:	<u>21.30</u>	feet
Height of water column:	<u>16.09</u>	feet
Measuring point:	<u>Top of Casing</u>	

Well Purging & Sample Collection

Purge Method <u>Bladder Pump</u>	Purge Time
Sample Method <u>Bladder Pump</u>	Start <u>1755</u> Stop <u>1840</u>
Purge Rate <u>100</u> ml/min	Sample Collection Time
Control Settings On: <u>3.0</u> sec.	Start <u>1840</u> Stop <u>1850</u>
Off: <u>27.0</u> sec.	
Pressure: _____ psi	

Volume of water in well

2" well:

height: 16.09 x .163 = 2.62267

Volume of water removed 4.0 gallons _____ liters x

Was well purged dry Yes _____ No x

Field Analyses

*Stabilization Parameters

Time	Date	Temp	pH	Conductivity	*ORP	*D.O.	*Turbidity	DTW
1800	10/6/2015	17.12	6.01	2.044	-4	7.70	36.70	6.25
1805	10/6/2015	17.07	5.97	2.045	-8	1.42	51.00	6.61
1810	10/6/2015	17.07	5.95	2.044	-10	1.15	62.70	6.82
1815	10/6/2015	17.03	5.94	2.041	-11	1.15	63.50	6.95
1820	10/6/2015	16.95	5.93	2.035	-12	1.17	64.60	7.14
1825	10/6/2015	16.92	5.93	2.032	-12	1.54	61.70	7.15
1830	10/6/2015	16.88	5.93	2.028	-12	1.55	57.90	7.19
1835	10/6/2015	16.76	5.92	2.021	-12	1.22	57.40	7.21
1840	10/6/2015	16.63	5.89	2.017	-12	1.19	54.30	7.20

Final Readings	<u>1840</u>	<u>10/6/2015</u>	<u>16.63</u> * C	<u>5.89</u> units	<u>2.017</u> mS/cm	<u>-12</u> mV	<u>1.19</u> mg/L	<u>54.30</u> NTU	<u>7.20</u>
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GROUNDWATER SAMPLING FIELD DATA

Location: White Street Landfill
 Project No.: 1584-98-081
 Source Well: 4103-I3

Locked?: Yes: x No:
 Sampled By: Gary Simcox

Purge Date: Wednesday, October 07, 2015
 Purge Time:
 Sample Date: Wednesday, October 07, 2015
 Sample Time: 840
 Weather: Clear
 Air Temp: 55 °F

Water Level & Well Data

Depth to water from measuring point: 14.01 feet
 Depth to well bottom from measuring point: 24.20 feet
 Height of water column: 10.19 feet
 Measuring point: Top of Casing

Well Purging & Sample Collection

Purge Method Bladder Pump
 Sample Method Bladder Pump
 Purge Rate 100 ml/min
 Control Settings On: 3.0 sec.
 Off: 27.0 sec.
 Pressure: 21 psi

Purge Time
 Start 730 Stop 830

Sample Collection Time
 Start 830 Stop 840

Volume of water in well
 2" well:
 height: 10.19 x .163 = 1.66097

Volume of water removed 4.0 gallons liters x

Was well purged dry Yes No x

Field Analyses

*Stabilization Parameters

Time	Date	Temp	pH	Conductivity	*ORP	*D.O.	*Turbidity	DTW
735	10/7/2015	14.54	6.03	2.352	88	4.97	38.60	14.04
740	10/7/2015	14.45	6.00	2.399	78	3.47	15.30	14.15
745	10/7/2015	14.34	5.98	2.430	71	2.51	12.70	14.15
750	10/7/2015	14.33	5.97	2.458	65	1.88	10.55	14.22
755	10/7/2015	14.27	5.97	2.471	61	1.49	9.04	14.18
800	10/7/2015	14.22	5.96	2.478	57	1.19	8.01	14.16
805	10/7/2015	14.31	5.96	2.483	53	0.95	6.39	14.15
810	10/7/2015	14.37	5.97	2.480	51	0.85	4.76	14.16
815	10/7/2015	14.13	5.95	2.463	52	0.73	3.92	14.16
820	10/7/2015	14.51	5.96	2.451	52	0.67	3.17	14.16
825	10/7/2015	14.51	5.97	2.435	53	0.64	3.03	14.16
830	10/7/2015	14.50	5.97	2.424	54	0.69	2.96	14.16

Final Readings

830	10/7/2015	14.50	5.97	2.424	54	0.69	2.96	14.16
		* C	units	mS/cm	mV	mg/L	NTU	

GROUNDWATER SAMPLING FIELD DATA

Location: White Street Landfill

Project No.: 1584-98-081

Source Well: 4103-I4

Locked?: Yes: x No:

Sampled By: Gary Simcox

Purge Date:	Wednesday, October 07, 2015
Purge Time:	Wednesday, October 07, 2015
Sample Time:	1045
Weather:	Sunny
Air Temp:	60 °F

Water Level & Well Data

Depth to water from measuring point:	2.57	feet
Depth to well bottom from measuring point:	15.00	feet
Height of water column:	12.43	feet
Measuring point:	Top of Casing	

Well Purging & Sample Collection

Purge Method	Bladder Pump
Sample Method	Bladder Pump
Purge Rate	100 ml/min
Control Settings	On: 2.0 sec.
	Off: 28.0 sec.
	Pressure: 15 psi

Purge Time
Start 915 Stop 1035

Sample Collection Time
Start 1035 Stop 1045

Volume of water in well

2" well:

height: 12.43 x .163 = 2.02609

Volume of water removed	<u>5.0</u>	gallons	<u> </u>	liters	<u> x </u>
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Was well purged dry Yes _____ No x

Field Analyses

*Stabilization Parameters

[illegible]

Final Readings	1035	10/7/2015	17.89	6.35	1.239	106	0.37	27.70	4.54
			* C	units	mS/cm	mV	mg/L	NTU	

GROUNDWATER SAMPLING FIELD DATA

Location: White Street Landfill

Project No.: 1584-98-081

Source Well: 4112-SW1

Summit Avenue Bridge

Locked?: Yes: **x** No:

Sampled By: Gary Simcox

Purge Date:	Wednesday, October 07, 2015
Purge Time:	
Sample Date:	Wednesday, October 07, 2015
Sample Time:	1400
Weather:	Sunny
Air Temp:	65 *F

Water Level & Well Data

Depth to water from measuring point: _____ feet

Depth to well bottom from measuring point: _____ feet

Height of water column: 0.00 _____ feet

Measuring point: _____

Well Purging & Sample Collection

Purge Method _____

Sample Method _____

Purge Rate _____ ml/min

Control Settings On: _____ sec.

 Off: _____ sec.

 Pressure: _____ psi

Purge Time
Start _____ Stop _____

Sample Collection Time
Start _____ Stop _____

Volume of water in well

2" well:
height: _____ $0 \times .163 =$ _____ 0

Volume of water removed _____ gallons _____ liters _____

Was well purged dry Yes _____ No _____

Field Analyses

*Stabilization Parameters

[illegible]

Final Readings

1400	10/7/2015	18.76	7.27	0.229				
		* C	units	mS/cm				

GROUNDWATER SAMPLING FIELD DATA

Location: White Street Landfill

Project No.: 1584-98-081

Source Well: 4112-SW2

White Street and Nealtown Road

Locked?: Yes: x No:

Sampled By: Gary Simcox

Purge Date:	Wednesday, October 07, 2015
Purge Time:	
Sample Date:	Wednesday, October 07, 2015
Sample Time:	1320
Weather:	Sunny
Air Temp:	65 °F

Water Level & Well Data

Depth to water from measuring point: _____ feet

Depth to well bottom from measuring point: _____ feet

Height of water column: 0.00 feet

Measuring point: _____

Well Purging & Sample Collection

Purge Method _____

Sample Method _____

Purge Rate _____ ml/min

Control Settings On: _____ sec.

 Off: _____ sec.

 Pressure: _____ psi

Purge Time
Start _____ Stop _____

Sample Collection Time
Start _____ Stop _____

Volume of water in well

2" well:

height: _____ 0 x .163 = _____ 0

Volume of water removed _____ gallons _____ liters **x**

Was well purged dry Yes _____ No x

Field Analyses

*Stabilization Parameters

[illegible]

Final Readings

1320	10/7/2015	17.11	7.37	0.151				
		* C	units	mS/cm				

GROUNDWATER SAMPLING FIELD DATA

Location: White Street Landfill

Project No.: 1584-98-081

Source Well: 4112-SW3

Waste Water Treatment Plant

Locked?: Yes: _____ No: _____

Sampled By: Gary Simcox

Purge Date:	Wednesday, October 07, 2015
Purge Time:	
Sample Date:	Wednesday, October 07, 2015
Sample Time:	1545
Weather:	Sunny
Air Temp:	65 °F

Water Level & Well Data

Depth to water from measuring point: _____ feet

Depth to well bottom from measuring point: _____ feet

Height of water column: 0.00 _____ feet

Measuring point: _____

Well Purging & Sample Collection

Purge Method _____

Sample Method _____

Purge Rate _____ ml/min

Control Settings On: _____ sec.

 Off: _____ sec.

 Pressure: _____ psi

Purge Time
Start _____ Stop _____

Sample Collection Time
Start _____ Stop _____

Volume of water in well

2" well:

height: 0 x .163 = 0

Volume of water removed _____ gallons _____ liters _____

Was well purged dry Yes _____ No x

Field Analyses

*Stabilization Parameters

[illegible]

Final Readings

154	10/7/2015	21.82	7.34	0.337				
		* C	units	mS/cm				

GROUNDWATER SAMPLING FIELD DATA

Location: White Street Landfill

Project No.: 1584-98-081

Source Well: 4112-SW4

Rankin Mill Road Bridge

Locked?: Yes: x No:

Sampled By: Gary Simcox

Purge Date:	Wednesday, October 07, 2015
Purge Time:	
Sample Date:	Wednesday, October 07, 2015
Sample Time:	1445
Weather:	Sunny
Air Temp:	65 *F

Water Level & Well Data

Depth to water from measuring point: _____ feet

Depth to well bottom from measuring point: _____ feet

Height of water column: 0.00 _____ feet

Measuring point: _____

Well Purging & Sample Collection

Purge Method _____

Sample Method _____

Purge Rate _____ ml/min

Control Settings On: _____ sec.

 Off: _____ sec.

 Pressure: _____ psi

Purge Time

Start _____ Stop _____

Sample Collection Time

Start _____ Stop _____

Volume of water in well

2nd well:

height: 0 x .163 = 0

Volume of water removed _____ gallons _____ liters _____

Was well purged dry Yes _____ No _____

Field Analyses

*Stabilization Parameters

[illegible]

Final Readings

1445	10/7/2015	20.90	7.62	0.299				
		* C	units	mS/cm				

GROUNDWATER SAMPLING FIELD DATA

Location: White Street Landfill

Project No.: 1584-98-081

Source Well: 4112-SW5

Below monitor well II-3

Locked?: Yes: x No:

Sampled By: Gary Simcox

Purge Date:	Wednesday, October 07, 2015
Purge Time:	
Sample Date:	Wednesday, October 07, 2015
Sample Time:	1245
Weather:	Sunny
Air Temp:	65 °F

Water Level & Well Data

Depth to water from measuring point: _____ feet

Depth to well bottom from measuring point: _____ feet

Height of water column: 0.00 _____ feet

Measuring point: _____

Well Purging & Sample Collection

Purge Method _____

Sample Method _____

Purge Rate _____ gpm

Control Settings On: _____ sec.

 Off: _____ sec.

 Pressure: _____ psi

Purge Time

Start _____ Stop _____

Sample Collection Time

Start _____ Stop _____

Volume of water in well

2" well:

height: $0 \times .163 = 0$

Volume of water removed 0.0 gallons x liters

Was well purged dry Yes _____ No x

Field Analyses

*Stabilization Parameters

[illegible]

Final Readings

124	10/7/2015	19.20	7.19	0.284				
		* C	units	mS/cm				

Appendix II – Laboratory Analytical Reports

Environmental Conservation Laboratories, Inc.

102-A Woodwinds Industrial Court

Cary NC, 27511

Phone: 919.467.3090 FAX: 919.467.3515



www.encolabs.com

Monday, October 19, 2015

City of Greensboro (CI034)

Attn: Lewis Walker

2503 White Street

Greensboro, NC 27405

RE: Laboratory Results for

Project Number: [none], Project Name/Desc: White Street Landfill AppI (Phase I)

ENCO Workorder(s): C512355

Dear Lewis Walker,

Enclosed is a copy of your laboratory report for test samples received by our laboratory on Wednesday, October 7, 2015.

Unless otherwise noted in an attached project narrative, all samples were received in acceptable condition and processed in accordance with the referenced methods/procedures. Results for these procedures apply only to the samples as submitted.

The analytical results contained in this report are in compliance with NELAC standards, except as noted in the project narrative. This report shall not be reproduced except in full, without the written approval of the Laboratory.

This report contains only those analyses performed by Environmental Conservation Laboratories. Unless otherwise noted, all analyses were performed at ENCO Cary. Data from outside organizations will be reported under separate cover.

If you have any questions or require further information, please do not hesitate to contact me.

Sincerely,

A handwritten signature in black ink that reads "Chuck Smith". The signature is fluid and cursive, with the first letters of the first and last names being capitalized and prominent.

Chuck Smith

Project Manager

Enclosure(s)



www.encolabs.com

SAMPLE SUMMARY/LABORATORY CHRONICLE

Client ID:	4103-I1	Lab ID:	C512355-01	Sampled:	10/06/15 17:35	Received:	10/07/15 13:15
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Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 6010C	04/03/16	10/08/15 08:50	10/12/2015 15:09
EPA 7470A	11/03/15	10/12/15 08:24	10/13/2015 11:15
EPA 8260B	10/20/15	10/13/15 12:45	10/14/2015 18:41

Client ID:	4103-I2	Lab ID:	C512355-02	Sampled:	10/06/15 18:50	Received:	10/07/15 13:15
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Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 6010C	04/03/16	10/08/15 08:50	10/12/2015 15:12
EPA 7470A	11/03/15	10/12/15 08:24	10/13/2015 11:17
EPA 8260B	10/20/15	10/13/15 12:45	10/14/2015 19:10

Client ID:	4103-I3	Lab ID:	C512355-03	Sampled:	10/07/15 08:40	Received:	10/07/15 13:15
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Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 6010C	04/04/16	10/08/15 08:50	10/12/2015 15:15
EPA 7470A	11/04/15	10/12/15 08:24	10/13/2015 11:19
EPA 8260B	10/21/15	10/13/15 12:41	10/14/2015 06:12

Client ID:	4103-I4	Lab ID:	C512355-04	Sampled:	10/07/15 10:45	Received:	10/07/15 13:15
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Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 6010C	04/04/16	10/08/15 08:50	10/12/2015 15:23
EPA 7470A	11/04/15	10/12/15 08:24	10/13/2015 11:23
EPA 8260B	10/21/15	10/13/15 12:41	10/14/2015 06:41

NORTH CAROLINA SWS SAMPLE DETECTION SUMMARY

Client ID: 4103-I1	Lab ID: C512355-01								
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Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
1,1-Dichloroethane	1.0	J	1	0.13	1.0	5	ug/L	EPA 8260B	
1,4-Dichlorobenzene	3.6		1	0.19	1.0	1	ug/L	EPA 8260B	
Barium - Total	484		1	1.00	10.0	100	ug/L	EPA 6010C	
Benzene	3.3		1	0.15	1.0	1	ug/L	EPA 8260B	
Chlorobenzene	7.2		1	0.17	1.0	3	ug/L	EPA 8260B	
Chromium - Total	2.66	J	1	1.40	10.0	10	ug/L	EPA 6010C	
cis-1,2-Dichloroethene	0.94	J	1	0.15	1.0	5	ug/L	EPA 8260B	
Lead - Total	3.70	J	1	3.10	10.0	10	ug/L	EPA 6010C	

Client ID: 4103-I2	Lab ID: C512355-02								
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Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
1,2-Dichlorobenzene	1.4	J	1	0.19	1.0	5	ug/L	EPA 8260B	
1,4-Dichlorobenzene	1.7		1	0.19	1.0	1	ug/L	EPA 8260B	
Barium - Total	576		1	1.00	10.0	100	ug/L	EPA 6010C	
Chlorobenzene	8.0		1	0.17	1.0	3	ug/L	EPA 8260B	
Chromium - Total	29.9		1	1.40	10.0	10	ug/L	EPA 6010C	
cis-1,2-Dichloroethene	0.41	J	1	0.15	1.0	5	ug/L	EPA 8260B	
Lead - Total	4.30	J	1	3.10	10.0	10	ug/L	EPA 6010C	
Toluene	0.50	J	1	0.14	1.0	1	ug/L	EPA 8260B	
Vinyl chloride	0.65	J	1	0.32	1.0	1	ug/L	EPA 8260B	

Client ID: 4103-I3	Lab ID: C512355-03								
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Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
1,1-Dichloroethane	3.2	J	1	0.13	1.0	5	ug/L	EPA 8260B	
1,1-Dichloroethene	0.80	J	1	0.21	1.0	5	ug/L	EPA 8260B	
1,2-Dichlorobenzene	0.84	J	1	0.19	1.0	5	ug/L	EPA 8260B	
1,4-Dichlorobenzene	4.7		1	0.19	1.0	1	ug/L	EPA 8260B	
Barium - Total	151		1	1.00	10.0	100	ug/L	EPA 6010C	
Benzene	0.58	J	1	0.15	1.0	1	ug/L	EPA 8260B	
Chlorobenzene	18		1	0.17	1.0	3	ug/L	EPA 8260B	
Chromium - Total	7.78	J	1	1.40	10.0	10	ug/L	EPA 6010C	
cis-1,2-Dichloroethene	0.87	J	1	0.15	1.0	5	ug/L	EPA 8260B	
Vinyl chloride	0.59	J	1	0.32	1.0	1	ug/L	EPA 8260B	

Client ID: 4103-I4	Lab ID: C512355-04								
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Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
1,4-Dichlorobenzene	0.53	J	1	0.19	1.0	1	ug/L	EPA 8260B	
Barium - Total	376		1	1.00	10.0	100	ug/L	EPA 6010C	
Cadmium - Total	3.80		1	0.360	1.00	1	ug/L	EPA 6010C	
Chlorobenzene	0.67	J	1	0.17	1.0	3	ug/L	EPA 8260B	
Chromium - Total	4.61	J	1	1.40	10.0	10	ug/L	EPA 6010C	
Lead - Total	3.70	J	1	3.10	10.0	10	ug/L	EPA 6010C	



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ANALYTICAL RESULTS**Description:** 4103-I1**Lab Sample ID:** C512355-01**Received:** 10/07/15 13:15**Matrix:** Ground Water**Sampled:** 10/06/15 17:35**Work Order:** C512355**Project:** White Street Landfill AppI (Phase I)**Sampled By:** Gary Simcox**Volatile Organic Compounds by GCMS**

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
1,1,1,2-Tetrachloroethane [630-20-6] ^	0.17	U	ug/L	1	0.17	1.0	5	EPA 8260B	10/14/15 18:41	MSZ	
1,1,1-Trichloroethane [71-55-6] ^	0.12	U	ug/L	1	0.12	1.0	1	EPA 8260B	10/14/15 18:41	MSZ	
1,1,2,2-Tetrachloroethane [79-34-5] ^	0.28	U	ug/L	1	0.28	1.0	3	EPA 8260B	10/14/15 18:41	MSZ	
1,1,2-Trichloroethane [79-00-5] ^	0.14	U	ug/L	1	0.14	1.0	1	EPA 8260B	10/14/15 18:41	MSZ	
1,1-Dichloroethane [75-34-3] ^	1.0	J	ug/L	1	0.13	1.0	5	EPA 8260B	10/14/15 18:41	MSZ	
1,1-Dichloroethene [75-35-4] ^	0.21	U	ug/L	1	0.21	1.0	5	EPA 8260B	10/14/15 18:41	MSZ	
1,2,3-Trichloropropane [96-18-4] ^	0.23	U	ug/L	1	0.23	1.0	1	EPA 8260B	10/14/15 18:41	MSZ	
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.48	U	ug/L	1	0.48	1.0	13	EPA 8260B	10/14/15 18:41	MSZ	
1,2-Dibromoethane [106-93-4] ^	0.66	U	ug/L	1	0.66	1.0	1	EPA 8260B	10/14/15 18:41	MSZ	
1,2-Dichlorobenzene [95-50-1] ^	0.19	U	ug/L	1	0.19	1.0	5	EPA 8260B	10/14/15 18:41	MSZ	
1,2-Dichloroethane [107-06-2] ^	0.21	U	ug/L	1	0.21	1.0	1	EPA 8260B	10/14/15 18:41	MSZ	
1,2-Dichloropropane [78-87-5] ^	0.10	U	ug/L	1	0.10	1.0	1	EPA 8260B	10/14/15 18:41	MSZ	
1,4-Dichlorobenzene [106-46-7] ^	3.6		ug/L	1	0.19	1.0	1	EPA 8260B	10/14/15 18:41	MSZ	
2-Butanone [78-93-3] ^	1.3	U	ug/L	1	1.3	5.0	100	EPA 8260B	10/14/15 18:41	MSZ	
2-Hexanone [591-78-6] ^	0.88	U	ug/L	1	0.88	5.0	50	EPA 8260B	10/14/15 18:41	MSZ	
4-Methyl-2-pentanone [108-10-1] ^	1.1	U	ug/L	1	1.1	5.0	100	EPA 8260B	10/14/15 18:41	MSZ	
Acetone [67-64-1] ^	1.2	U	ug/L	1	1.2	5.0	100	EPA 8260B	10/14/15 18:41	MSZ	
Acrylonitrile [107-13-1] ^	3.5	U	ug/L	1	3.5	10	200	EPA 8260B	10/14/15 18:41	MSZ	
Benzene [71-43-2] ^	3.3		ug/L	1	0.15	1.0	1	EPA 8260B	10/14/15 18:41	MSZ	
Bromochloromethane [74-97-5] ^	0.48	U	ug/L	1	0.48	1.0	3	EPA 8260B	10/14/15 18:41	MSZ	
Bromodichloromethane [75-27-4] ^	0.17	U	ug/L	1	0.17	1.0	1	EPA 8260B	10/14/15 18:41	MSZ	
Bromoform [75-25-2] ^	0.22	U	ug/L	1	0.22	1.0	3	EPA 8260B	10/14/15 18:41	MSZ	
Bromomethane [74-83-9] ^	0.14	U	ug/L	1	0.14	1.0	10	EPA 8260B	10/14/15 18:41	MSZ	
Carbon disulfide [75-15-0] ^	1.5	U	ug/L	1	1.5	5.0	100	EPA 8260B	10/14/15 18:41	MSZ	
Carbon tetrachloride [56-23-5] ^	0.17	U	ug/L	1	0.17	1.0	1	EPA 8260B	10/14/15 18:41	MSZ	
Chlorobenzene [108-90-7] ^	7.2		ug/L	1	0.17	1.0	3	EPA 8260B	10/14/15 18:41	MSZ	
Chloroethane [75-00-3] ^	0.23	U	ug/L	1	0.23	1.0	10	EPA 8260B	10/14/15 18:41	MSZ	
Chloroform [67-66-3] ^	0.18	U	ug/L	1	0.18	1.0	5	EPA 8260B	10/14/15 18:41	MSZ	
Chloromethane [74-87-3] ^	0.13	U	ug/L	1	0.13	1.0	1	EPA 8260B	10/14/15 18:41	MSZ	
cis-1,2-Dichloroethene [156-59-2] ^	0.94	J	ug/L	1	0.15	1.0	5	EPA 8260B	10/14/15 18:41	MSZ	
cis-1,3-Dichloropropene [10061-01-5] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	10/14/15 18:41	MSZ	
Dibromochloromethane [124-48-1] ^	0.17	U	ug/L	1	0.17	1.0	3	EPA 8260B	10/14/15 18:41	MSZ	
Dibromomethane [74-95-3] ^	0.27	U	ug/L	1	0.27	1.0	10	EPA 8260B	10/14/15 18:41	MSZ	
Ethylbenzene [100-41-4] ^	0.13	U	ug/L	1	0.13	1.0	1	EPA 8260B	10/14/15 18:41	MSZ	
Iodomethane [74-88-4] ^	1.7	U	ug/L	1	1.7	5.0	10	EPA 8260B	10/14/15 18:41	MSZ	
Methylene chloride [75-09-2] ^	0.23	U	ug/L	1	0.23	1.0	1	EPA 8260B	10/14/15 18:41	MSZ	
Styrene [100-42-5] ^	0.11	U	ug/L	1	0.11	1.0	1	EPA 8260B	10/14/15 18:41	MSZ	
Tetrachloroethene [127-18-4] ^	0.17	U	ug/L	1	0.17	1.0	1	EPA 8260B	10/14/15 18:41	MSZ	
Toluene [108-88-3] ^	0.14	U	ug/L	1	0.14	1.0	1	EPA 8260B	10/14/15 18:41	MSZ	
trans-1,2-Dichloroethene [156-60-5] ^	0.21	U	ug/L	1	0.21	1.0	5	EPA 8260B	10/14/15 18:41	MSZ	
trans-1,3-Dichloropropene [10061-02-6] ^	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	10/14/15 18:41	MSZ	
trans-1,4-Dichloro-2-butene [110-57-6] ^	0.70	U	ug/L	1	0.70	1.0	100	EPA 8260B	10/14/15 18:41	MSZ	
Trichloroethene [79-01-6] ^	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	10/14/15 18:41	MSZ	
Trichlorofluoromethane [75-69-4] ^	0.24	U	ug/L	1	0.24	1.0	1	EPA 8260B	10/14/15 18:41	MSZ	
Vinyl acetate [108-05-4] ^	0.95	U	ug/L	1	0.95	5.0	50	EPA 8260B	10/14/15 18:41	MSZ	
Vinyl chloride [75-01-4] ^	0.32	U	ug/L	1	0.32	1.0	1	EPA 8260B	10/14/15 18:41	MSZ	
Xylenes (Total) [1330-20-7] ^	0.45	U	ug/L	1	0.45	3.0	5	EPA 8260B	10/14/15 18:41	MSZ	



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Description: 4103-I1

Lab Sample ID: C512355-01

Received: 10/07/15 13:15

Matrix: Ground Water

Sampled: 10/06/15 17:35

Work Order: C512355

Project: White Street Landfill AppI (Phase I)

Sampled By: Gary Simcox

Volatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

<u>Analyte [CAS Number]</u>	<u>Results</u>	<u>Flag</u>	<u>Units</u>	<u>DF</u>	<u>MDL</u>	<u>MRL</u>	<u>NC SWSL</u>	<u>Method</u>	<u>Analyzed</u>	<u>By</u>	<u>Notes</u>
<i>Surrogates</i>	<i>Results</i>	<i>DF</i>	<i>Spike Lvl</i>	<i>% Rec</i>	<i>% Rec Limits</i>	<i>Batch</i>	<i>Method</i>	<i>Analyzed</i>	<i>By</i>	<i>Notes</i>	
4-Bromofluorobenzene	55	1	50.0	110 %	53-136	5J14027	EPA 8260B	10/14/15 18:41	MSZ		
Dibromofluoromethane	50	1	50.0	100 %	67-129	5J14027	EPA 8260B	10/14/15 18:41	MSZ		
Toluene-d8	52	1	50.0	104 %	59-134	5J14027	EPA 8260B	10/14/15 18:41	MSZ		



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Description: 4103-I1

Lab Sample ID: C512355-01

Received: 10/07/15 13:15

Matrix: Ground Water

Sampled: 10/06/15 17:35

Work Order: C512355

Project: White Street Landfill AppI (Phase I)

Sampled By: Gary Simcox

Metals by EPA 6000/7000 Series Methods

^ - ENCO Cary certified analyte [NC 591]

<u>Analyte</u> [<u>CAS Number</u>]	<u>Results</u>	<u>Flag</u>	<u>Units</u>	<u>DF</u>	<u>MDL</u>	<u>MRL</u>	<u>NC SWSL</u>	<u>Method</u>	<u>Analyzed</u>	<u>By</u>	<u>Notes</u>
Mercury [7439-97-6] ^	0.170	U	ug/L	1	0.170	0.200	0.2	EPA 7470A	10/13/15 11:15	BAM	



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Description: 4103-I1

Lab Sample ID: C512355-01

Received: 10/07/15 13:15

Matrix: Ground Water

Sampled: 10/06/15 17:35

Work Order: C512355

Project: White Street Landfill AppI (Phase I)

Sampled By: Gary Simcox

Metals (total recoverable) by EPA 6000/7000 Series Methods

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Arsenic [7440-38-2] ^	6.80	U	ug/L	1	6.80	10.0	10	EPA 6010C	10/12/15 15:09	JDH	
Barium [7440-39-3] ^	484		ug/L	1	1.00	10.0	100	EPA 6010C	10/12/15 15:09	JDH	
Cadmium [7440-43-9] ^	0.360	U	ug/L	1	0.360	1.00	1	EPA 6010C	10/12/15 15:09	JDH	
Chromium [7440-47-3] ^	2.66	J	ug/L	1	1.40	10.0	10	EPA 6010C	10/12/15 15:09	JDH	
Lead [7439-92-1] ^	3.70	J	ug/L	1	3.10	10.0	10	EPA 6010C	10/12/15 15:09	JDH	
Selenium [7782-49-2] ^	5.00	U	ug/L	1	5.00	10.0	10	EPA 6010C	10/12/15 15:09	JDH	
Silver [7440-22-4] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	10/12/15 15:09	JDH	



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Description: 4103-I2

Lab Sample ID: C512355-02

Received: 10/07/15 13:15

Matrix: Ground Water

Sampled: 10/06/15 18:50

Work Order: C512355

Project: White Street Landfill AppI (Phase I)

Sampled By: Gary Simcox

Volatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
1,1,1,2-Tetrachloroethane [630-20-6] ^	0.17	U	ug/L	1	0.17	1.0	5	EPA 8260B	10/14/15 19:10	MSZ	
1,1,1-Trichloroethane [71-55-6] ^	0.12	U	ug/L	1	0.12	1.0	1	EPA 8260B	10/14/15 19:10	MSZ	
1,1,2,2-Tetrachloroethane [79-34-5] ^	0.28	U	ug/L	1	0.28	1.0	3	EPA 8260B	10/14/15 19:10	MSZ	
1,1,2-Trichloroethane [79-00-5] ^	0.14	U	ug/L	1	0.14	1.0	1	EPA 8260B	10/14/15 19:10	MSZ	
1,1-Dichloroethane [75-34-3] ^	0.13	U	ug/L	1	0.13	1.0	5	EPA 8260B	10/14/15 19:10	MSZ	
1,1-Dichloroethene [75-35-4] ^	0.21	U	ug/L	1	0.21	1.0	5	EPA 8260B	10/14/15 19:10	MSZ	
1,2,3-Trichloropropane [96-18-4] ^	0.23	U	ug/L	1	0.23	1.0	1	EPA 8260B	10/14/15 19:10	MSZ	
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.48	U	ug/L	1	0.48	1.0	13	EPA 8260B	10/14/15 19:10	MSZ	
1,2-Dibromoethane [106-93-4] ^	0.66	U	ug/L	1	0.66	1.0	1	EPA 8260B	10/14/15 19:10	MSZ	
1,2-Dichlorobenzene [95-50-1] ^	1.4	J	ug/L	1	0.19	1.0	5	EPA 8260B	10/14/15 19:10	MSZ	
1,2-Dichloroethane [107-06-2] ^	0.21	U	ug/L	1	0.21	1.0	1	EPA 8260B	10/14/15 19:10	MSZ	
1,2-Dichloropropane [78-87-5] ^	0.10	U	ug/L	1	0.10	1.0	1	EPA 8260B	10/14/15 19:10	MSZ	
1,4-Dichlorobenzene [106-46-7] ^	1.7		ug/L	1	0.19	1.0	1	EPA 8260B	10/14/15 19:10	MSZ	
2-Butanone [78-93-3] ^	1.3	U	ug/L	1	1.3	5.0	100	EPA 8260B	10/14/15 19:10	MSZ	
2-Hexanone [591-78-6] ^	0.88	U	ug/L	1	0.88	5.0	50	EPA 8260B	10/14/15 19:10	MSZ	
4-Methyl-2-pentanone [108-10-1] ^	1.1	U	ug/L	1	1.1	5.0	100	EPA 8260B	10/14/15 19:10	MSZ	
Acetone [67-64-1] ^	1.2	U	ug/L	1	1.2	5.0	100	EPA 8260B	10/14/15 19:10	MSZ	
Acrylonitrile [107-13-1] ^	3.5	U	ug/L	1	3.5	10	200	EPA 8260B	10/14/15 19:10	MSZ	
Benzene [71-43-2] ^	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	10/14/15 19:10	MSZ	
Bromochloromethane [74-97-5] ^	0.48	U	ug/L	1	0.48	1.0	3	EPA 8260B	10/14/15 19:10	MSZ	
Bromodichloromethane [75-27-4] ^	0.17	U	ug/L	1	0.17	1.0	1	EPA 8260B	10/14/15 19:10	MSZ	
Bromoform [75-25-2] ^	0.22	U	ug/L	1	0.22	1.0	3	EPA 8260B	10/14/15 19:10	MSZ	
Bromomethane [74-83-9] ^	0.14	U	ug/L	1	0.14	1.0	10	EPA 8260B	10/14/15 19:10	MSZ	
Carbon disulfide [75-15-0] ^	1.5	U	ug/L	1	1.5	5.0	100	EPA 8260B	10/14/15 19:10	MSZ	
Carbon tetrachloride [56-23-5] ^	0.17	U	ug/L	1	0.17	1.0	1	EPA 8260B	10/14/15 19:10	MSZ	
Chlorobenzene [108-90-7] ^	8.0		ug/L	1	0.17	1.0	3	EPA 8260B	10/14/15 19:10	MSZ	
Chloroethane [75-00-3] ^	0.23	U	ug/L	1	0.23	1.0	10	EPA 8260B	10/14/15 19:10	MSZ	
Chloroform [67-66-3] ^	0.18	U	ug/L	1	0.18	1.0	5	EPA 8260B	10/14/15 19:10	MSZ	
Chloromethane [74-87-3] ^	0.13	U	ug/L	1	0.13	1.0	1	EPA 8260B	10/14/15 19:10	MSZ	
cis-1,2-Dichloroethene [156-59-2] ^	0.41	J	ug/L	1	0.15	1.0	5	EPA 8260B	10/14/15 19:10	MSZ	
cis-1,3-Dichloropropene [10061-01-5] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	10/14/15 19:10	MSZ	
Dibromochloromethane [124-48-1] ^	0.17	U	ug/L	1	0.17	1.0	3	EPA 8260B	10/14/15 19:10	MSZ	
Dibromomethane [74-95-3] ^	0.27	U	ug/L	1	0.27	1.0	10	EPA 8260B	10/14/15 19:10	MSZ	
Ethylbenzene [100-41-4] ^	0.13	U	ug/L	1	0.13	1.0	1	EPA 8260B	10/14/15 19:10	MSZ	
Iodomethane [74-88-4] ^	1.7	U	ug/L	1	1.7	5.0	10	EPA 8260B	10/14/15 19:10	MSZ	
Methylene chloride [75-09-2] ^	0.23	U	ug/L	1	0.23	1.0	1	EPA 8260B	10/14/15 19:10	MSZ	
Styrene [100-42-5] ^	0.11	U	ug/L	1	0.11	1.0	1	EPA 8260B	10/14/15 19:10	MSZ	
Tetrachloroethene [127-18-4] ^	0.17	U	ug/L	1	0.17	1.0	1	EPA 8260B	10/14/15 19:10	MSZ	
Toluene [108-88-3] ^	0.50	J	ug/L	1	0.14	1.0	1	EPA 8260B	10/14/15 19:10	MSZ	
trans-1,2-Dichloroethene [156-60-5] ^	0.21	U	ug/L	1	0.21	1.0	5	EPA 8260B	10/14/15 19:10	MSZ	
trans-1,3-Dichloropropene [10061-02-6] ^	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	10/14/15 19:10	MSZ	
trans-1,4-Dichloro-2-butene [110-57-6] ^	0.70	U	ug/L	1	0.70	1.0	100	EPA 8260B	10/14/15 19:10	MSZ	
Trichloroethene [79-01-6] ^	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	10/14/15 19:10	MSZ	
Trichlorofluoromethane [75-69-4] ^	0.24	U	ug/L	1	0.24	1.0	1	EPA 8260B	10/14/15 19:10	MSZ	
Vinyl acetate [108-05-4] ^	0.95	U	ug/L	1	0.95	5.0	50	EPA 8260B	10/14/15 19:10	MSZ	
Vinyl chloride [75-01-4] ^	0.65	J	ug/L	1	0.32	1.0	1	EPA 8260B	10/14/15 19:10	MSZ	
Xylenes (Total) [1330-20-7] ^	0.45	U	ug/L	1	0.45	3.0	5	EPA 8260B	10/14/15 19:10	MSZ	

Surrogates	Results	DF	Spike Lvl	% Rec	% Rec Limits	Batch	Method	Analyzed	By	Notes
4-Bromofluorobenzene	53	1	50.0	106 %	53-136	5J14027	EPA 8260B	10/14/15 19:10	MSZ	
Dibromofluoromethane	49	1	50.0	98 %	67-129	5J14027	EPA 8260B	10/14/15 19:10	MSZ	



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Description: 4103-I2

Lab Sample ID: C512355-02

Received: 10/07/15 13:15

Matrix: Ground Water

Sampled: 10/06/15 18:50

Work Order: C512355

Project: White Street Landfill AppI (Phase I)

Sampled By: Gary Simcox

Volatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

<u>Analyte</u> [<u>CAS Number</u>]	<u>Results</u>	<u>Flag</u>	<u>Units</u>	<u>DF</u>	<u>MDL</u>	<u>MRL</u>	<u>NC SWSL</u>	<u>Method</u>	<u>Analyzed</u>	<u>By</u>	<u>Notes</u>
<i>Surrogates</i>	<i>Results</i>	<i>DF</i>	<i>Spike Lvl</i>	<i>% Rec</i>	<i>% Rec Limits</i>	<i>Batch</i>	<i>Method</i>	<i>Analyzed</i>	<i>By</i>	<i>Notes</i>	
<i>Toluene-d8</i>	<i>52</i>	<i>1</i>	<i>50.0</i>	<i>104 %</i>	<i>59-134</i>	<i>5J14027</i>	<i>EPA 8260B</i>	<i>10/14/15 19:10</i>	<i>MSZ</i>		



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Description: 4103-I2

Lab Sample ID: C512355-02

Received: 10/07/15 13:15

Matrix: Ground Water

Sampled: 10/06/15 18:50

Work Order: C512355

Project: White Street Landfill AppI (Phase I)

Sampled By: Gary Simcox

Metals by EPA 6000/7000 Series Methods

^ - ENCO Cary certified analyte [NC 591]

<u>Analyte</u> [<u>CAS Number</u>]	<u>Results</u>	<u>Flag</u>	<u>Units</u>	<u>DF</u>	<u>MDL</u>	<u>MRL</u>	<u>NC SWSL</u>	<u>Method</u>	<u>Analyzed</u>	<u>By</u>	<u>Notes</u>
Mercury [7439-97-6] ^	0.170	U	ug/L	1	0.170	0.200	0.2	EPA 7470A	10/13/15 11:17	BAM	



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Description: 4103-I2

Lab Sample ID: C512355-02

Received: 10/07/15 13:15

Matrix: Ground Water

Sampled: 10/06/15 18:50

Work Order: C512355

Project: White Street Landfill AppI (Phase I)

Sampled By: Gary Simcox

Metals (total recoverable) by EPA 6000/7000 Series Methods

^ - ENCO Cary certified analyte [NC 591]

<u>Analyte [CAS Number]</u>	<u>Results</u>	<u>Flag</u>	<u>Units</u>	<u>DF</u>	<u>MDL</u>	<u>MRL</u>	<u>NC SWSL</u>	<u>Method</u>	<u>Analyzed</u>	<u>By</u>	<u>Notes</u>
Arsenic [7440-38-2] ^	6.80	U	ug/L	1	6.80	10.0	10	EPA 6010C	10/12/15 15:12	JDH	
Barium [7440-39-3] ^	576		ug/L	1	1.00	10.0	100	EPA 6010C	10/12/15 15:12	JDH	
Cadmium [7440-43-9] ^	0.360	U	ug/L	1	0.360	1.00	1	EPA 6010C	10/12/15 15:12	JDH	
Chromium [7440-47-3] ^	29.9		ug/L	1	1.40	10.0	10	EPA 6010C	10/12/15 15:12	JDH	
Lead [7439-92-1] ^	4.30	J	ug/L	1	3.10	10.0	10	EPA 6010C	10/12/15 15:12	JDH	
Selenium [7782-49-2] ^	5.00	U	ug/L	1	5.00	10.0	10	EPA 6010C	10/12/15 15:12	JDH	
Silver [7440-22-4] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	10/12/15 15:12	JDH	

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Description: 4103-I3

Lab Sample ID: C512355-03

Received: 10/07/15 13:15

Matrix: Ground Water

Sampled: 10/07/15 08:40

Work Order: C512355

Project: White Street Landfill AppI (Phase I)

Sampled By: Gary Simcox

Volatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
1,1,1,2-Tetrachloroethane [630-20-6] ^	0.17	U	ug/L	1	0.17	1.0	5	EPA 8260B	10/14/15 06:12	REF	
1,1,1-Trichloroethane [71-55-6] ^	0.12	U	ug/L	1	0.12	1.0	1	EPA 8260B	10/14/15 06:12	REF	
1,1,2,2-Tetrachloroethane [79-34-5] ^	0.28	U	ug/L	1	0.28	1.0	3	EPA 8260B	10/14/15 06:12	REF	
1,1,2-Trichloroethane [79-00-5] ^	0.14	U	ug/L	1	0.14	1.0	1	EPA 8260B	10/14/15 06:12	REF	
1,1-Dichloroethane [75-34-3] ^	3.2	J	ug/L	1	0.13	1.0	5	EPA 8260B	10/14/15 06:12	REF	
1,1-Dichloroethene [75-35-4] ^	0.80	J	ug/L	1	0.21	1.0	5	EPA 8260B	10/14/15 06:12	REF	
1,2,3-Trichloropropane [96-18-4] ^	0.23	U	ug/L	1	0.23	1.0	1	EPA 8260B	10/14/15 06:12	REF	
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.48	U	ug/L	1	0.48	1.0	13	EPA 8260B	10/14/15 06:12	REF	
1,2-Dibromoethane [106-93-4] ^	0.66	U	ug/L	1	0.66	1.0	1	EPA 8260B	10/14/15 06:12	REF	
1,2-Dichlorobenzene [95-50-1] ^	0.84	J	ug/L	1	0.19	1.0	5	EPA 8260B	10/14/15 06:12	REF	
1,2-Dichloroethane [107-06-2] ^	0.21	U	ug/L	1	0.21	1.0	1	EPA 8260B	10/14/15 06:12	REF	
1,2-Dichloropropane [78-87-5] ^	0.10	U	ug/L	1	0.10	1.0	1	EPA 8260B	10/14/15 06:12	REF	
1,4-Dichlorobenzene [106-46-7] ^	4.7		ug/L	1	0.19	1.0	1	EPA 8260B	10/14/15 06:12	REF	
2-Butanone [78-93-3] ^	1.3	U	ug/L	1	1.3	5.0	100	EPA 8260B	10/14/15 06:12	REF	
2-Hexanone [591-78-6] ^	0.88	U	ug/L	1	0.88	5.0	50	EPA 8260B	10/14/15 06:12	REF	
4-Methyl-2-pentanone [108-10-1] ^	1.1	U	ug/L	1	1.1	5.0	100	EPA 8260B	10/14/15 06:12	REF	
Acetone [67-64-1] ^	1.2	U	ug/L	1	1.2	5.0	100	EPA 8260B	10/14/15 06:12	REF	
Acrylonitrile [107-13-1] ^	3.5	U	ug/L	1	3.5	10	200	EPA 8260B	10/14/15 06:12	REF	
Benzene [71-43-2] ^	0.58	J	ug/L	1	0.15	1.0	1	EPA 8260B	10/14/15 06:12	REF	
Bromochloromethane [74-97-5] ^	0.48	U	ug/L	1	0.48	1.0	3	EPA 8260B	10/14/15 06:12	REF	
Bromodichloromethane [75-27-4] ^	0.17	U	ug/L	1	0.17	1.0	1	EPA 8260B	10/14/15 06:12	REF	
Bromoform [75-25-2] ^	0.22	U	ug/L	1	0.22	1.0	3	EPA 8260B	10/14/15 06:12	REF	
Bromomethane [74-83-9] ^	0.14	U	ug/L	1	0.14	1.0	10	EPA 8260B	10/14/15 06:12	REF	
Carbon disulfide [75-15-0] ^	1.5	U	ug/L	1	1.5	5.0	100	EPA 8260B	10/14/15 06:12	REF	
Carbon tetrachloride [56-23-5] ^	0.17	U	ug/L	1	0.17	1.0	1	EPA 8260B	10/14/15 06:12	REF	
Chlorobenzene [108-90-7] ^	18		ug/L	1	0.17	1.0	3	EPA 8260B	10/14/15 06:12	REF	
Chloroethane [75-00-3] ^	0.23	U	ug/L	1	0.23	1.0	10	EPA 8260B	10/14/15 06:12	REF	
Chloroform [67-66-3] ^	0.18	U	ug/L	1	0.18	1.0	5	EPA 8260B	10/14/15 06:12	REF	
Chloromethane [74-87-3] ^	0.13	U	ug/L	1	0.13	1.0	1	EPA 8260B	10/14/15 06:12	REF	
cis-1,2-Dichloroethene [156-59-2] ^	0.87	J	ug/L	1	0.15	1.0	5	EPA 8260B	10/14/15 06:12	REF	
cis-1,3-Dichloropropene [10061-01-5] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	10/14/15 06:12	REF	
Dibromochloromethane [124-48-1] ^	0.17	U	ug/L	1	0.17	1.0	3	EPA 8260B	10/14/15 06:12	REF	
Dibromomethane [74-95-3] ^	0.27	U	ug/L	1	0.27	1.0	10	EPA 8260B	10/14/15 06:12	REF	
Ethylbenzene [100-41-4] ^	0.13	U	ug/L	1	0.13	1.0	1	EPA 8260B	10/14/15 06:12	REF	
Iodomethane [74-88-4] ^	1.7	U	ug/L	1	1.7	5.0	10	EPA 8260B	10/14/15 06:12	REF	
Methylene chloride [75-09-2] ^	0.23	U	ug/L	1	0.23	1.0	1	EPA 8260B	10/14/15 06:12	REF	
Styrene [100-42-5] ^	0.11	U	ug/L	1	0.11	1.0	1	EPA 8260B	10/14/15 06:12	REF	
Tetrachloroethene [127-18-4] ^	0.17	U	ug/L	1	0.17	1.0	1	EPA 8260B	10/14/15 06:12	REF	
Toluene [108-88-3] ^	0.14	U	ug/L	1	0.14	1.0	1	EPA 8260B	10/14/15 06:12	REF	
trans-1,2-Dichloroethene [156-60-5] ^	0.21	U	ug/L	1	0.21	1.0	5	EPA 8260B	10/14/15 06:12	REF	
trans-1,3-Dichloropropene [10061-02-6] ^	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	10/14/15 06:12	REF	
trans-1,4-Dichloro-2-butene [110-57-6] ^	0.70	U	ug/L	1	0.70	1.0	100	EPA 8260B	10/14/15 06:12	REF	
Trichloroethene [79-01-6] ^	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	10/14/15 06:12	REF	
Trichlorofluoromethane [75-69-4] ^	0.24	U	ug/L	1	0.24	1.0	1	EPA 8260B	10/14/15 06:12	REF	
Vinyl acetate [108-05-4] ^	0.95	U	ug/L	1	0.95	5.0	50	EPA 8260B	10/14/15 06:12	REF	
Vinyl chloride [75-01-4] ^	0.59	J	ug/L	1	0.32	1.0	1	EPA 8260B	10/14/15 06:12	REF	
Xylenes (Total) [1330-20-7] ^	0.45	U	ug/L	1	0.45	3.0	5	EPA 8260B	10/14/15 06:12	REF	

Surrogates	Results	DF	Spike Lvl	% Rec	% Rec Limits	Batch	Method	Analyzed	By	Notes
4-Bromofluorobenzene	48	1	50.0	95 %	53-136	5J13019	EPA 8260B	10/14/15 06:12	REF	
Dibromofluoromethane	54	1	50.0	107 %	67-129	5J13019	EPA 8260B	10/14/15 06:12	REF	



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Description: 4103-I3

Lab Sample ID: C512355-03

Received: 10/07/15 13:15

Matrix: Ground Water

Sampled: 10/07/15 08:40

Work Order: C512355

Project: White Street Landfill AppI (Phase I)

Sampled By: Gary Simcox

Volatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

<u>Analyte</u> [<u>CAS Number</u>]	<u>Results</u>	<u>Flag</u>	<u>Units</u>	<u>DF</u>	<u>MDL</u>	<u>MRL</u>	<u>NC SWSL</u>	<u>Method</u>	<u>Analyzed</u>	<u>By</u>	<u>Notes</u>
<u>Surrogates</u>	<u>Results</u>	<u>DF</u>	<u>Spike Lvl</u>	<u>% Rec</u>	<u>% Rec Limits</u>	<u>Batch</u>	<u>Method</u>	<u>Analyzed</u>	<u>By</u>	<u>Notes</u>	
Toluene-d8	49	1	50.0	97 %	59-134	5J13019	EPA 8260B	10/14/15 06:12	REF		



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Description: 4103-I3

Lab Sample ID: C512355-03

Received: 10/07/15 13:15

Matrix: Ground Water

Sampled: 10/07/15 08:40

Work Order: C512355

Project: White Street Landfill AppI (Phase I)

Sampled By: Gary Simcox

Metals by EPA 6000/7000 Series Methods

^ - ENCO Cary certified analyte [NC 591]

<u>Analyte [CAS Number]</u>	<u>Results</u>	<u>Flag</u>	<u>Units</u>	<u>DF</u>	<u>MDL</u>	<u>MRL</u>	<u>NC SWSL</u>	<u>Method</u>	<u>Analyzed</u>	<u>By</u>	<u>Notes</u>
Mercury [7439-97-6] ^	0.170	U	ug/L	1	0.170	0.200	0.2	EPA 7470A	10/13/15 11:19	BAM	



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Description: 4103-I3

Lab Sample ID: C512355-03

Received: 10/07/15 13:15

Matrix: Ground Water

Sampled: 10/07/15 08:40

Work Order: C512355

Project: White Street Landfill AppI (Phase I)

Sampled By: Gary Simcox

Metals (total recoverable) by EPA 6000/7000 Series Methods

^ - ENCO Cary certified analyte [NC 591]

<u>Analyte [CAS Number]</u>	<u>Results</u>	<u>Flag</u>	<u>Units</u>	<u>DF</u>	<u>MDL</u>	<u>MRL</u>	<u>NC SWSL</u>	<u>Method</u>	<u>Analyzed</u>	<u>By</u>	<u>Notes</u>
Arsenic [7440-38-2] ^	6.80	U	ug/L	1	6.80	10.0	10	EPA 6010C	10/12/15 15:15	JDH	
Barium [7440-39-3] ^	151		ug/L	1	1.00	10.0	100	EPA 6010C	10/12/15 15:15	JDH	
Cadmium [7440-43-9] ^	0.360	U	ug/L	1	0.360	1.00	1	EPA 6010C	10/12/15 15:15	JDH	
Chromium [7440-47-3] ^	7.78	J	ug/L	1	1.40	10.0	10	EPA 6010C	10/12/15 15:15	JDH	
Lead [7439-92-1] ^	3.10	U	ug/L	1	3.10	10.0	10	EPA 6010C	10/12/15 15:15	JDH	
Selenium [7782-49-2] ^	5.00	U	ug/L	1	5.00	10.0	10	EPA 6010C	10/12/15 15:15	JDH	
Silver [7440-22-4] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	10/12/15 15:15	JDH	

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Description: 4103-I4

Lab Sample ID: C512355-04

Received: 10/07/15 13:15

Matrix: Ground Water

Sampled: 10/07/15 10:45

Work Order: C512355

Project: White Street Landfill AppI (Phase I)

Sampled By: Gary Simcox

Volatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
1,1,1,2-Tetrachloroethane [630-20-6] ^	0.17	U	ug/L	1	0.17	1.0	5	EPA 8260B	10/14/15 06:41	REF	
1,1,1-Trichloroethane [71-55-6] ^	0.12	U	ug/L	1	0.12	1.0	1	EPA 8260B	10/14/15 06:41	REF	
1,1,2,2-Tetrachloroethane [79-34-5] ^	0.28	U	ug/L	1	0.28	1.0	3	EPA 8260B	10/14/15 06:41	REF	
1,1,2-Trichloroethane [79-00-5] ^	0.14	U	ug/L	1	0.14	1.0	1	EPA 8260B	10/14/15 06:41	REF	
1,1-Dichloroethane [75-34-3] ^	0.13	U	ug/L	1	0.13	1.0	5	EPA 8260B	10/14/15 06:41	REF	
1,1-Dichloroethene [75-35-4] ^	0.21	U	ug/L	1	0.21	1.0	5	EPA 8260B	10/14/15 06:41	REF	
1,2,3-Trichloropropane [96-18-4] ^	0.23	U	ug/L	1	0.23	1.0	1	EPA 8260B	10/14/15 06:41	REF	
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.48	U	ug/L	1	0.48	1.0	13	EPA 8260B	10/14/15 06:41	REF	
1,2-Dibromoethane [106-93-4] ^	0.66	U	ug/L	1	0.66	1.0	1	EPA 8260B	10/14/15 06:41	REF	
1,2-Dichlorobenzene [95-50-1] ^	0.19	U	ug/L	1	0.19	1.0	5	EPA 8260B	10/14/15 06:41	REF	
1,2-Dichloroethane [107-06-2] ^	0.21	U	ug/L	1	0.21	1.0	1	EPA 8260B	10/14/15 06:41	REF	
1,2-Dichloropropane [78-87-5] ^	0.10	U	ug/L	1	0.10	1.0	1	EPA 8260B	10/14/15 06:41	REF	
1,4-Dichlorobenzene [106-46-7] ^	0.53	J	ug/L	1	0.19	1.0	1	EPA 8260B	10/14/15 06:41	REF	
2-Butanone [78-93-3] ^	1.3	U	ug/L	1	1.3	5.0	100	EPA 8260B	10/14/15 06:41	REF	
2-Hexanone [591-78-6] ^	0.88	U	ug/L	1	0.88	5.0	50	EPA 8260B	10/14/15 06:41	REF	
4-Methyl-2-pentanone [108-10-1] ^	1.1	U	ug/L	1	1.1	5.0	100	EPA 8260B	10/14/15 06:41	REF	
Acetone [67-64-1] ^	1.2	U	ug/L	1	1.2	5.0	100	EPA 8260B	10/14/15 06:41	REF	
Acrylonitrile [107-13-1] ^	3.5	U	ug/L	1	3.5	10	200	EPA 8260B	10/14/15 06:41	REF	
Benzene [71-43-2] ^	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	10/14/15 06:41	REF	
Bromochloromethane [74-97-5] ^	0.48	U	ug/L	1	0.48	1.0	3	EPA 8260B	10/14/15 06:41	REF	
Bromodichloromethane [75-27-4] ^	0.17	U	ug/L	1	0.17	1.0	1	EPA 8260B	10/14/15 06:41	REF	
Bromoform [75-25-2] ^	0.22	U	ug/L	1	0.22	1.0	3	EPA 8260B	10/14/15 06:41	REF	
Bromomethane [74-83-9] ^	0.14	U	ug/L	1	0.14	1.0	10	EPA 8260B	10/14/15 06:41	REF	
Carbon disulfide [75-15-0] ^	1.5	U	ug/L	1	1.5	5.0	100	EPA 8260B	10/14/15 06:41	REF	
Carbon tetrachloride [56-23-5] ^	0.17	U	ug/L	1	0.17	1.0	1	EPA 8260B	10/14/15 06:41	REF	
Chlorobenzene [108-90-7] ^	0.67	J	ug/L	1	0.17	1.0	3	EPA 8260B	10/14/15 06:41	REF	
Chloroethane [75-00-3] ^	0.23	U	ug/L	1	0.23	1.0	10	EPA 8260B	10/14/15 06:41	REF	
Chloroform [67-66-3] ^	0.18	U	ug/L	1	0.18	1.0	5	EPA 8260B	10/14/15 06:41	REF	
Chloromethane [74-87-3] ^	0.13	U	ug/L	1	0.13	1.0	1	EPA 8260B	10/14/15 06:41	REF	
cis-1,2-Dichloroethene [156-59-2] ^	0.15	U	ug/L	1	0.15	1.0	5	EPA 8260B	10/14/15 06:41	REF	
cis-1,3-Dichloropropene [10061-01-5] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	10/14/15 06:41	REF	
Dibromochloromethane [124-48-1] ^	0.17	U	ug/L	1	0.17	1.0	3	EPA 8260B	10/14/15 06:41	REF	
Dibromomethane [74-95-3] ^	0.27	U	ug/L	1	0.27	1.0	10	EPA 8260B	10/14/15 06:41	REF	
Ethylbenzene [100-41-4] ^	0.13	U	ug/L	1	0.13	1.0	1	EPA 8260B	10/14/15 06:41	REF	
Iodomethane [74-88-4] ^	1.7	U	ug/L	1	1.7	5.0	10	EPA 8260B	10/14/15 06:41	REF	
Methylene chloride [75-09-2] ^	0.23	U	ug/L	1	0.23	1.0	1	EPA 8260B	10/14/15 06:41	REF	
Styrene [100-42-5] ^	0.11	U	ug/L	1	0.11	1.0	1	EPA 8260B	10/14/15 06:41	REF	
Tetrachloroethene [127-18-4] ^	0.17	U	ug/L	1	0.17	1.0	1	EPA 8260B	10/14/15 06:41	REF	
Toluene [108-88-3] ^	0.14	U	ug/L	1	0.14	1.0	1	EPA 8260B	10/14/15 06:41	REF	
trans-1,2-Dichloroethene [156-60-5] ^	0.21	U	ug/L	1	0.21	1.0	5	EPA 8260B	10/14/15 06:41	REF	
trans-1,3-Dichloropropene [10061-02-6] ^	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	10/14/15 06:41	REF	
trans-1,4-Dichloro-2-butene [110-57-6] ^	0.70	U	ug/L	1	0.70	1.0	100	EPA 8260B	10/14/15 06:41	REF	
Trichloroethene [79-01-6] ^	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	10/14/15 06:41	REF	
Trichlorofluoromethane [75-69-4] ^	0.24	U	ug/L	1	0.24	1.0	1	EPA 8260B	10/14/15 06:41	REF	
Vinyl acetate [108-05-4] ^	0.95	U	ug/L	1	0.95	5.0	50	EPA 8260B	10/14/15 06:41	REF	
Vinyl chloride [75-01-4] ^	0.32	U	ug/L	1	0.32	1.0	1	EPA 8260B	10/14/15 06:41	REF	
Xylenes (Total) [1330-20-7] ^	0.45	U	ug/L	1	0.45	3.0	5	EPA 8260B	10/14/15 06:41	REF	

Surrogates	Results	DF	Spike Lvl	% Rec	% Rec Limits	Batch	Method	Analyzed	By	Notes
4-Bromofluorobenzene	47	1	50.0	93 %	53-136	5J13019	EPA 8260B	10/14/15 06:41	REF	
Dibromofluoromethane	54	1	50.0	107 %	67-129	5J13019	EPA 8260B	10/14/15 06:41	REF	



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Description: 4103-I4

Lab Sample ID: C512355-04

Received: 10/07/15 13:15

Matrix: Ground Water

Sampled: 10/07/15 10:45

Work Order: C512355

Project: White Street Landfill AppI (Phase I)

Sampled By: Gary Simcox

Volatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

<u>Analyte</u> [<u>CAS Number</u>]	<u>Results</u>	<u>Flag</u>	<u>Units</u>	<u>DF</u>	<u>MDL</u>	<u>MRL</u>	<u>NC SWSL</u>	<u>Method</u>	<u>Analyzed</u>	<u>By</u>	<u>Notes</u>
<u>Surrogates</u>	<u>Results</u>	<u>DF</u>	<u>Spike Lvl</u>	<u>% Rec</u>	<u>% Rec Limits</u>	<u>Batch</u>	<u>Method</u>	<u>Analyzed</u>	<u>By</u>	<u>Notes</u>	
Toluene-d8	48	1	50.0	96 %	59-134	5J13019	EPA 8260B	10/14/15 06:41	REF		



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Description: 4103-I4

Lab Sample ID: C512355-04

Received: 10/07/15 13:15

Matrix: Ground Water

Sampled: 10/07/15 10:45

Work Order: C512355

Project: White Street Landfill AppI (Phase I)

Sampled By: Gary Simcox

Metals by EPA 6000/7000 Series Methods

^ - ENCO Cary certified analyte [NC 591]

<u>Analyte [CAS Number]</u>	<u>Results</u>	<u>Flag</u>	<u>Units</u>	<u>DF</u>	<u>MDL</u>	<u>MRL</u>	<u>NC SWSL</u>	<u>Method</u>	<u>Analyzed</u>	<u>By</u>	<u>Notes</u>
Mercury [7439-97-6] ^	0.170	U	ug/L	1	0.170	0.200	0.2	EPA 7470A	10/13/15 11:23	BAM	



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Description: 4103-I4

Lab Sample ID: C512355-04

Received: 10/07/15 13:15

Matrix: Ground Water

Sampled: 10/07/15 10:45

Work Order: C512355

Project: White Street Landfill AppI (Phase I)

Sampled By: Gary Simcox

Metals (total recoverable) by EPA 6000/7000 Series Methods

^ - ENCO Cary certified analyte [NC 591]

<u>Analyte [CAS Number]</u>	<u>Results</u>	<u>Flag</u>	<u>Units</u>	<u>DF</u>	<u>MDL</u>	<u>MRL</u>	<u>NC SWSL</u>	<u>Method</u>	<u>Analyzed</u>	<u>By</u>	<u>Notes</u>
Arsenic [7440-38-2] ^	6.80	U	ug/L	1	6.80	10.0	10	EPA 6010C	10/12/15 15:23	JDH	
Barium [7440-39-3] ^	376		ug/L	1	1.00	10.0	100	EPA 6010C	10/12/15 15:23	JDH	
Cadmium [7440-43-9] ^	3.80		ug/L	1	0.360	1.00	1	EPA 6010C	10/12/15 15:23	JDH	
Chromium [7440-47-3] ^	4.61	J	ug/L	1	1.40	10.0	10	EPA 6010C	10/12/15 15:23	JDH	
Lead [7439-92-1] ^	3.70	J	ug/L	1	3.10	10.0	10	EPA 6010C	10/12/15 15:23	JDH	
Selenium [7782-49-2] ^	5.00	U	ug/L	1	5.00	10.0	10	EPA 6010C	10/12/15 15:23	JDH	
Silver [7440-22-4] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	10/12/15 15:23	JDH	

This report relates only to the sample as received by the laboratory, and may only be reproduced in full.

QUALITY CONTROL

Volatile Organic Compounds by GCMS - Quality Control

Batch 5J13019 - EPA 5030B_MS

Blank (5J13019-BLK1)

Prepared: 10/13/2015 12:41 Analyzed: 10/13/2015 23:32

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,1,1,2-Tetrachloroethane	0.17	U	1.0	ug/L							
1,1,1-Trichloroethane	0.12	U	1.0	ug/L							
1,1,2,2-Tetrachloroethane	0.28	U	1.0	ug/L							
1,1,2-Trichloroethane	0.14	U	1.0	ug/L							
1,1-Dichloroethane	0.13	U	1.0	ug/L							
1,1-Dichloroethene	0.21	U	1.0	ug/L							
1,2,3-Trichloropropane	0.23	U	1.0	ug/L							
1,2-Dibromo-3-chloropropane	0.48	U	1.0	ug/L							
1,2-Dibromoethane	0.66	U	1.0	ug/L							
1,2-Dichlorobenzene	0.19	U	1.0	ug/L							
1,2-Dichloroethane	0.21	U	1.0	ug/L							
1,2-Dichloropropane	0.10	U	1.0	ug/L							
1,4-Dichlorobenzene	0.19	U	1.0	ug/L							
2-Butanone	1.3	U	5.0	ug/L							
2-Hexanone	0.88	U	5.0	ug/L							
4-Methyl-2-pentanone	1.1	U	5.0	ug/L							
Acetone	1.2	U	5.0	ug/L							
Acrylonitrile	3.5	U	10	ug/L							
Benzene	0.15	U	1.0	ug/L							
Bromochloromethane	0.48	U	1.0	ug/L							
Bromodichloromethane	0.17	U	1.0	ug/L							
Bromoform	0.22	U	1.0	ug/L							
Bromomethane	0.14	U	1.0	ug/L							
Carbon disulfide	1.5	U	5.0	ug/L							
Carbon tetrachloride	0.17	U	1.0	ug/L							
Chlorobenzene	0.17	U	1.0	ug/L							
Chloroethane	0.23	U	1.0	ug/L							
Chloroform	0.18	U	1.0	ug/L							
Chloromethane	0.13	U	1.0	ug/L							
cis-1,2-Dichloroethene	0.15	U	1.0	ug/L							
cis-1,3-Dichloropropene	0.20	U	1.0	ug/L							
Dibromochloromethane	0.17	U	1.0	ug/L							
Dibromomethane	0.27	U	1.0	ug/L							
Ethylbenzene	0.13	U	1.0	ug/L							
Iodomethane	1.7	U	5.0	ug/L							
Methylene chloride	0.23	U	1.0	ug/L							
Styrene	0.11	U	1.0	ug/L							
Tetrachloroethene	0.17	U	1.0	ug/L							
Toluene	0.14	U	1.0	ug/L							
trans-1,2-Dichloroethene	0.21	U	1.0	ug/L							
trans-1,3-Dichloropropene	0.15	U	1.0	ug/L							
trans-1,4-Dichloro-2-butene	0.70	U	1.0	ug/L							
Trichloroethene	0.15	U	1.0	ug/L							
Trichlorofluoromethane	0.24	U	1.0	ug/L							
Vinyl acetate	0.95	U	5.0	ug/L							
Vinyl chloride	0.32	U	1.0	ug/L							
Xylenes (Total)	0.45	U	3.0	ug/L							
Surrogate: 4-Bromofluorobenzene	48			ug/L	50.0		97	53-136			

QUALITY CONTROL

Volatile Organic Compounds by GCMS - Quality Control

Batch 5J13019 - EPA 5030B_MS

Blank (5J13019-BLK1) Continued

Prepared: 10/13/2015 12:41 Analyzed: 10/13/2015 23:32

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Surrogate: Dibromofluoromethane	53			ug/L	50.0		105	67-129			
Surrogate: Toluene-d8	49			ug/L	50.0		99	59-134			

LCS (5J13019-BS1)

Prepared: 10/13/2015 12:41 Analyzed: 10/14/2015 00:01

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,1-Dichloroethene	21		1.0	ug/L	20.0		107	75-133			
Benzene	21		1.0	ug/L	20.0		104	81-134			
Chlorobenzene	20		1.0	ug/L	20.0		98	83-117			
Toluene	21		1.0	ug/L	20.0		106	71-118			
Trichloroethene	19		1.0	ug/L	20.0		94	74-119			

Matrix Spike (5J13019-MS1)

Prepared: 10/13/2015 12:41 Analyzed: 10/14/2015 00:29

Source: C513226-02

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,1-Dichloroethene	22		1.0	ug/L	20.0	0.21 U	108	75-133			
Benzene	21		1.0	ug/L	20.0	0.15 U	106	81-134			
Chlorobenzene	20		1.0	ug/L	20.0	0.17 U	100	83-117			
Toluene	21		1.0	ug/L	20.0	0.14 U	106	71-118			
Trichloroethene	20		1.0	ug/L	20.0	0.15 U	98	74-119			

Matrix Spike Dup (5J13019-MSD1)

Prepared: 10/13/2015 12:41 Analyzed: 10/14/2015 00:58

Source: C513226-02

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,1-Dichloroethene	21		1.0	ug/L	20.0	0.21 U	106	75-133	2	20	
Benzene	21		1.0	ug/L	20.0	0.15 U	105	81-134	0.9	17	
Chlorobenzene	20		1.0	ug/L	20.0	0.17 U	98	83-117	2	16	
Toluene	21		1.0	ug/L	20.0	0.14 U	105	71-118	0.8	17	
Trichloroethene	19		1.0	ug/L	20.0	0.15 U	95	74-119	3	22	

Batch 5J14027 - EPA 5030B_MS

Blank (5J14027-BLK1)

Prepared: 10/14/2015 13:13 Analyzed: 10/14/2015 13:18

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,1,1,2-Tetrachloroethane	0.17	U	1.0	ug/L							
1,1,1-Trichloroethane	0.12	U	1.0	ug/L							
1,1,2,2-Tetrachloroethane	0.28	U	1.0	ug/L							
1,1,2-Trichloroethane	0.14	U	1.0	ug/L							
1,1-Dichloroethane	0.13	U	1.0	ug/L							
1,1-Dichloroethene	0.21	U	1.0	ug/L							
1,2,3-Trichloropropane	0.23	U	1.0	ug/L							
1,2-Dibromo-3-chloropropane	0.48	U	1.0	ug/L							
1,2-Dibromoethane	0.66	U	1.0	ug/L							
1,2-Dichlorobenzene	0.19	U	1.0	ug/L							

QUALITY CONTROL

Volatile Organic Compounds by GCMS - Quality Control

Batch 5J14027 - EPA 5030B_MS

Blank (5J14027-BLK1) Continued

Prepared: 10/14/2015 13:13 Analyzed: 10/14/2015 13:18

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,2-Dichloroethane	0.21	U	1.0	ug/L							
1,2-Dichloropropane	0.10	U	1.0	ug/L							
1,4-Dichlorobenzene	0.19	U	1.0	ug/L							
2-Butanone	1.3	U	5.0	ug/L							
2-Hexanone	0.88	U	5.0	ug/L							
4-Methyl-2-pentanone	1.1	U	5.0	ug/L							
Acetone	1.2	U	5.0	ug/L							
Acrylonitrile	3.5	U	10	ug/L							
Benzene	0.15	U	1.0	ug/L							
Bromochloromethane	0.48	U	1.0	ug/L							
Bromodichloromethane	0.17	U	1.0	ug/L							
Bromoform	0.22	U	1.0	ug/L							
Bromomethane	0.14	U	1.0	ug/L							
Carbon disulfide	1.5	U	5.0	ug/L							
Carbon tetrachloride	0.17	U	1.0	ug/L							
Chlorobenzene	0.17	U	1.0	ug/L							
Chloroethane	0.23	U	1.0	ug/L							
Chloroform	0.18	U	1.0	ug/L							
Chloromethane	0.13	U	1.0	ug/L							
cis-1,2-Dichloroethene	0.15	U	1.0	ug/L							
cis-1,3-Dichloropropene	0.20	U	1.0	ug/L							
Dibromochloromethane	0.17	U	1.0	ug/L							
Dibromomethane	0.27	U	1.0	ug/L							
Ethylbenzene	0.13	U	1.0	ug/L							
Iodomethane	1.7	U	5.0	ug/L							
Methylene chloride	0.23	U	1.0	ug/L							
Styrene	0.11	U	1.0	ug/L							
Tetrachloroethene	0.17	U	1.0	ug/L							
Toluene	0.14	U	1.0	ug/L							
trans-1,2-Dichloroethene	0.21	U	1.0	ug/L							
trans-1,3-Dichloropropene	0.15	U	1.0	ug/L							
trans-1,4-Dichloro-2-butene	0.70	U	1.0	ug/L							
Trichloroethene	0.15	U	1.0	ug/L							
Trichlorofluoromethane	0.24	U	1.0	ug/L							
Vinyl acetate	0.95	U	5.0	ug/L							
Vinyl chloride	0.32	U	1.0	ug/L							
Xylenes (Total)	0.45	U	3.0	ug/L							
<hr/>											
Surrogate: 4-Bromofluorobenzene	54			ug/L	50.0		108	53-136			
Surrogate: Dibromofluoromethane	49			ug/L	50.0		98	67-129			
Surrogate: Toluene-d8	51			ug/L	50.0		102	59-134			

LCS (5J14027-BS1)

Prepared: 10/14/2015 13:13 Analyzed: 10/14/2015 13:48

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,1-Dichloroethene	17		1.0	ug/L	20.0		84	75-133			
Benzene	17		1.0	ug/L	20.0		86	81-134			
Chlorobenzene	18		1.0	ug/L	20.0		91	83-117			
Toluene	17		1.0	ug/L	20.0		85	71-118			

QUALITY CONTROL

Volatile Organic Compounds by GCMS - Quality Control

Batch 5J14027 - EPA 5030B_MS

LCS (5J14027-BS1) Continued

Prepared: 10/14/2015 13:13 Analyzed: 10/14/2015 13:48

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Trichloroethene	19		1.0	ug/L	20.0		95	74-119			

Matrix Spike (5J14027-MS1)

Prepared: 10/14/2015 13:13 Analyzed: 10/14/2015 14:17

Source: C513226-05

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,1-Dichloroethene	17		1.0	ug/L	20.0	0.21 U	87	75-133			
Benzene	17		1.0	ug/L	20.0	0.15 U	87	81-134			
Chlorobenzene	18		1.0	ug/L	20.0	0.17 U	90	83-117			
Toluene	18		1.0	ug/L	20.0	0.14 U	89	71-118			
Trichloroethene	19		1.0	ug/L	20.0	0.15 U	95	74-119			

Matrix Spike Dup (5J14027-MSD1)

Prepared: 10/14/2015 13:13 Analyzed: 10/14/2015 14:46

Source: C513226-05

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,1-Dichloroethene	17		1.0	ug/L	20.0	0.21 U	85	75-133	3	20	
Benzene	17		1.0	ug/L	20.0	0.15 U	87	81-134	0.1	17	
Chlorobenzene	18		1.0	ug/L	20.0	0.17 U	92	83-117	2	16	
Toluene	17		1.0	ug/L	20.0	0.14 U	87	71-118	2	17	
Trichloroethene	18		1.0	ug/L	20.0	0.15 U	92	74-119	3	22	

Metals by EPA 6000/7000 Series Methods - Quality Control

Batch 5J12008 - EPA 7470A

Blank (5J12008-BLK1)

Prepared: 10/12/2015 08:24 Analyzed: 10/13/2015 10:28

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Mercury	0.170	U	0.200	ug/L							

LCS (5J12008-BS1)

Prepared: 10/12/2015 08:24 Analyzed: 10/13/2015 10:31

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Mercury	4.50		0.200	ug/L	5.00		90	80-120			

Matrix Spike (5J12008-MS1)

Prepared: 10/12/2015 08:24 Analyzed: 10/13/2015 10:35

Source: C512353-03

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Mercury	3.91		0.200	ug/L	5.00	0.170 U	78	75-125			

Matrix Spike Dup (5J12008-MSD1)

Prepared: 10/12/2015 08:24 Analyzed: 10/13/2015 10:42

Source: C512353-03

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Mercury	3.96		0.200	ug/L	5.00	0.170 U	79	75-125	1	25	

QUALITY CONTROL

Metals by EPA 6000/7000 Series Methods - Quality Control

Batch 5J12008 - EPA 7470A

Post Spike (5J12008-PS1)

Prepared: 10/12/2015 08:24 Analyzed: 10/13/2015 10:44

Source: C512353-03

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Mercury	4.21		0.200	ug/L	5.00	0.0370	83	75-125			

Metals (total recoverable) by EPA 6000/7000 Series Methods - Quality Control

Batch 5J08011 - EPA 3005A

Blank (5J08011-BLK1)

Prepared: 10/08/2015 08:50 Analyzed: 10/12/2015 13:54

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	6.80	U	10.0	ug/L							
Barium	1.00	U	10.0	ug/L							
Cadmium	0.360	U	1.00	ug/L							
Chromium	1.40	U	10.0	ug/L							
Lead	3.10	U	10.0	ug/L							
Selenium	5.00	U	10.0	ug/L							
Silver	1.90	U	10.0	ug/L							

LCS (5J08011-BS1)

Prepared: 10/08/2015 08:50 Analyzed: 10/12/2015 13:58

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	200		10.0	ug/L	200		100	80-120			
Barium	199		10.0	ug/L	200		99	80-120			
Cadmium	20.6		1.00	ug/L	20.0		103	80-120			
Chromium	199		10.0	ug/L	200		99	80-120			
Lead	202		10.0	ug/L	200		101	80-120			
Selenium	207		10.0	ug/L	200		104	80-120			
Silver	189		10.0	ug/L	200		94	80-120			

Matrix Spike (5J08011-MS1)

Prepared: 10/08/2015 08:50 Analyzed: 10/12/2015 14:04

Source: C512353-02

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	197		10.0	ug/L	200	6.80 U	99	75-125			
Barium	394		10.0	ug/L	200	201	96	75-125			
Cadmium	19.9		1.00	ug/L	20.0	0.360 U	99	75-125			
Chromium	197		10.0	ug/L	200	1.40 U	99	75-125			
Lead	198		10.0	ug/L	200	3.10 U	99	75-125			
Selenium	201		10.0	ug/L	200	5.00 U	101	75-125			
Silver	186		10.0	ug/L	200	1.90 U	93	75-125			

Matrix Spike Dup (5J08011-MSD1)

Prepared: 10/08/2015 08:50 Analyzed: 10/12/2015 14:15

Source: C512353-02

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	198		10.0	ug/L	200	6.80 U	99	75-125	0.2	20	
Barium	378		10.0	ug/L	200	201	89	75-125	4	20	

QUALITY CONTROL

Metals (total recoverable) by EPA 6000/7000 Series Methods - Quality Control

Batch 5J08011 - EPA 3005A

Matrix Spike Dup (5J08011-MSD1) Continued

Prepared: 10/08/2015 08:50 Analyzed: 10/12/2015 14:15

Source: C512353-02

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Cadmium	19.8		1.00	ug/L	20.0	0.360 U	99	75-125	0.4	20	
Chromium	192		10.0	ug/L	200	1.40 U	96	75-125	3	20	
Lead	199		10.0	ug/L	200	3.10 U	99	75-125	0.3	20	
Selenium	198		10.0	ug/L	200	5.00 U	99	75-125	2	20	
Silver	181		10.0	ug/L	200	1.90 U	91	75-125	3	20	

Post Spike (5J08011-PS1)

Prepared: 10/08/2015 08:50 Analyzed: 10/12/2015 14:18

Source: C512353-02

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	0.195		0.0100	mg/L	0.200	0.000622	97	80-120			
Barium	0.390		0.0100	mg/L	0.200	0.201	95	80-120			
Cadmium	0.0202		0.00100	mg/L	0.0200	-7.50E-5	101	80-120			
Chromium	0.195		0.0100	mg/L	0.200	0.000972	97	80-120			
Lead	0.203		0.0100	mg/L	0.200	0.00292	100	80-120			
Selenium	0.204		0.0100	mg/L	0.200	-0.00483	102	80-120			
Silver	0.181		0.0100	mg/L	0.200	-7.54E-5	90	80-120			

FLAGS/NOTES AND DEFINITIONS

B	The analyte was detected in the associated method blank.
D	The sample was analyzed at dilution.
J	The reported value is between the laboratory method detection limit (MDL) and the laboratory method reporting limit (MRL), adjusted for actual sample preparation data and moisture content, where applicable.
U	The analyte was analyzed for but not detected to the level shown, adjusted for actual sample preparation data and moisture content, where applicable.
E	The concentration indicated for this analyte is an estimated value above the calibration range of the instrument. This value is considered an estimate.
MRL	Method Reporting Limit. The MRL is roughly equivalent to the practical quantitation limit (PQL) and is based on the low point of the calibration curve, when applicable, sample preparation factor, dilution factor, and, in the case of soil samples, moisture content.

ENVIRONMENTAL CONSERVATION LABORATORIES CHAIN-OF-CUSTODY RECORD

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(407) 826-5314 Fax (407) 850-6945

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Jacksonville, FL 32216-6069
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102-A Woodwinds Industrial Ct.
Cary, NC 27511
(919) 467-3090 Fax (919) 467-3515

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Page ____ of ____

Client Name City of Greensboro (C1034)		Project Number [none]		Requested Turnaround Times									
Address 2503 White Street		Project Name/Desc White Street Landfill Appl (Phase I)		Note : Rush requests subject to acceptance by the facility									
City/ST/Zip Greensboro, NC 27405		PO # / Billing Info											
Tel (336) 373-4188	Fax	Reporting Contact Lewis Walker		8260B Appendix 1	Ag,As,Ba,Cd,Cr,Pb,Se	Hg							___ Standard
Sampler(s) Name, Affiliation (Print) GARY SIMCOX / SAME, Inc.		Billing Contact Angie Wade											___ Expedited
Sampler(s) Signature 		Site Location / Time Zone											Due ___/___/___
				Lab Workorder C512355									

[illegible]

Sample Kit Prepared By RAY		Date/Time 9/24	Relinquished By 		Date/Time 10/7/15	Received By Rachel	Date/Time 10/7/15 13:15
Comments: Special Reporting Requirements			Relinquished By	Date/Time	Received By	Date/Time	
			Relinquished By	Date/Time	Received By	Date/Time	
			Relinquished By	Date/Time	Received By	Date/Time	
Cooler #'s & Temps on Receipt C-124					Condition Upon Receipt <input checked="" type="checkbox"/> Acceptable <input type="checkbox"/> Unacceptable		

Matrix : GW-Groundwater SO-Soil DW-Drinking Water SE-Sediment SW-Surface Water WW-Wastewater A-Air O-Other (detail in comments)

Preservation: I-Ice H-HCl N-HNO3 S-H2SO4 NO-NaOH O-Other (detail in comments)

Note : All samples submitted to ENCO Labs are in accordance with the terms and conditions listed on the reverse of this form, unless prior written agreements exist.

Sample Preservation Verification

ENCO Cary



Work Order: C512355
 Client: City of Greensboro (CI034)
 Logged In: 07-Oct-15 13:45

Project: White Street Landfill Appl (Phase I)
 Project #: [none]
 Logged By: Rachel Ann Yonish

C512355-01

Cont	Type	Pres (pH) Requirement	pH Checked / In Control	pH Adjusted	Date/Time Adjusted	Reagent Used/Comments
A	250mLP+HNO3	<2	Y / N / NA	Y / N / NA		

C512355-02

Cont	Type	Pres (pH) Requirement	pH Checked / In Control	pH Adjusted	Date/Time Adjusted	Reagent Used/Comments
A	250mLP+HNO3	<2	Y / N / NA	Y / N / NA		

C512355-03

Cont	Type	Pres (pH) Requirement	pH Checked / In Control	pH Adjusted	Date/Time Adjusted	Reagent Used/Comments
A	250mLP+HNO3	<2	Y / N / NA	Y / N / NA		

C512355-04

Cont	Type	Pres (pH) Requirement	pH Checked / In Control	pH Adjusted	Date/Time Adjusted	Reagent Used/Comments
A	250mLP+HNO3	<2	Y / N / NA	Y / N / NA		

	Reagent Name	ID
1		
2		

	Reagent Name	ID
3		
4		

	Reagent Name	ID
5		
6		

Appendix III – NCDEQ EDDs (CD Only)